

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

27232

REGION IV

345 COURTLAND STREET, N.E. ATLANTA, GEORGIA 30365

September 26, 1995

4WD-SSRB

MEMORANDUM:

SUBJECT: Review of CERCLA Sites for Determination of NFRAP Status

FROM:

John A. McKeown

Site Assessment Section

South Superfund Remedial Branch, WMD

TO:

File

The U.S. EPA has recently reviewed the CERCLA files for the following sites:

1) Amoco Fabrics Co. Hazelhurst Mills - GAD046907689
2) Boeing Machine Products - GAD000615914
3) D&D Drums & Pallets - GAD980729511
4) Griffin Shoal Creek Landfill - GAD981025240
5) Mathis Brothers Chickamauga RD LF - GAD980838494
6) Lafayette Sheet Metal - GAD984270553
7) Westinghouse Electric - GAD003295144

After review of the files, a determination of No Further Response Action Planned (NFRAP) has been made for each of the aforementioned sites. A copy of this memorandum will be placed in each respective file.

8,18,62,7

FINAL

SCREENING SITE INSPECTION REPORT, PHASE II WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA EPA ID #: GAD003295144

Prepared Under TDD No. F4-8903-40 CONTRACT NO. 68-01-7346

Revision 0

FOR THE

WASTE MANAGEMENT DIVISION U.S. ENVIRONMENTAL PROTECTION AGENCY

AUGUST 6, 1990

NUS CORPORATION SUPERFUND DIVISION

Prepared By

Reviewed By

Reviewed By

Approved By

Rebecca A. Hoffmann

Project Manager/

Geologist

Bob Donaghue Assistant Regional

Project Manager

Regional Project Manager

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EXECUTIVE SUMMARY

The Westinghouse Electric Corporation (WEC) site is located north of Athens, Clarke County, Georgia. Operations at the facility include the manufacturing and repairing of overland distribution transformers. Between 1958 and 1970, WEC disposed of wastes generated from the manufacturing process in an onsite landfill. Wastes disposed of in the landfill may include spent solvents, acids and bases, paint and oil.

The WEC site is located in the Piedmont Physiographic Province. The rocks underlying this province are massive igneous and metamorphic rocks. The aquifer used in the study area can be characterized as a crystalline rock aquifer. In this aquifer, groundwater is stored in the unconsolidated material overlying the crystalline rock and within fractures that have formed in the crystalline rock. However, only three private wells are located in the 4-mile site radius.

Water is supplied to Athens and the surrounding areas by surface water obtained from the North and Middle Oconee rivers. One intake is located approximately 2.65 stream miles south of the site on the North Oconee River. There is a slight potential for site-related contaminant migration to the surface water pathway during periods of heavy rainfall. Approximately 98,800 persons are served by the Athens Water Department. The results of sediment sampling revealed the presence of inorganic contaminants with significantly higher concentrations than background conditions.

Organic and inorganic analytical results revealed the presence of site-related contaminants in the surface soils collected. Organic contaminants detected from the samples include fluoranthene, pyrene, benzo(a) anthracene, and benzo (b and/or k) fluoranthene. Inorganic elements revealed in samples included barium, chromium, copper, lead and zinc. There is a population of approximately 49,884 within the 4-mile site radius. Access to the landfill is unrestricted, and uncontained contaminated surface soils could be dispersed by the wind. Potentially affected targets include employees at the WEC facility and adjacent industrial properties and 486 people residing within the 1-mile site radius.

Based on the aforementioned information, FIT 4 recommends that a Listing Site Inspection, Phase I, be conducted at the WEC site.

1.0 INTRODUCTION

The NUS Corporation Region 4 Field Investigation Team (FIT) was tasked by the U. S. Environmental Protection Agency (EPA), Waste Management Division to conduct two screening site inspections (SSI) at the Westinghouse Electric Corporation site in Athens, Clarke County, Georgia. The inspections were performed under the authority of the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The tasks were performed to satisfy the requirements stated in Technical Directive Document (TDD) numbers F4-8903-40 and F4-8904-04. The field investigations were conducted May 3-4, 1989.

1.1 OBJECTIVES

The objectives of this inspection were to determine the nature of contaminants present at the site and to determine if a release of these substances has occurred or may occur. Further, this inspection sought to determine the possible pathways by which contamination could migrate from the site and the populations and environments it would potentially affect. Through these objectives, a recommendation was made regarding future activities at the site.

1.2 SCOPE OF WORK

The objectives were achieved through the completion of a number of specific tasks. These activities were to:

- Obtain and review relevant background materials.
- Obtain information on local water systems.
- Evaluate target population within a 4-mile radius of the site with regard to groundwater and 15-stream miles with regard to surface water use.
- Develop a site sketch, drawn to scale.
- Collect environmental samples.

2.0 SITE CHARACTERIZATION

2.1 SITE BACKGROUND AND HISTORY

The Westinghouse Electric Corporation (WEC) is located on Newton Bridge Road, in Athens, Clarke County, Georgia. The facility has been actively manufacturing and repairing overhead distribution transformers at the present location since 1957. Wastes generated from the manufacturing processes were disposed of in an onsite landfill from 1958 to 1970 in fiber containers, and five- and 55-gallon metal drums (Refs. 1, 2). Between 1971 and 1977, generated wastes were disposed of at the Clarke County landfill located east of Athens, Georgia. During 1978 and 1979, WEC began shipping accumulated wastes to SCA services in South Carolina. Current disposal practices employ reclamation and incineration (Ref. 1).

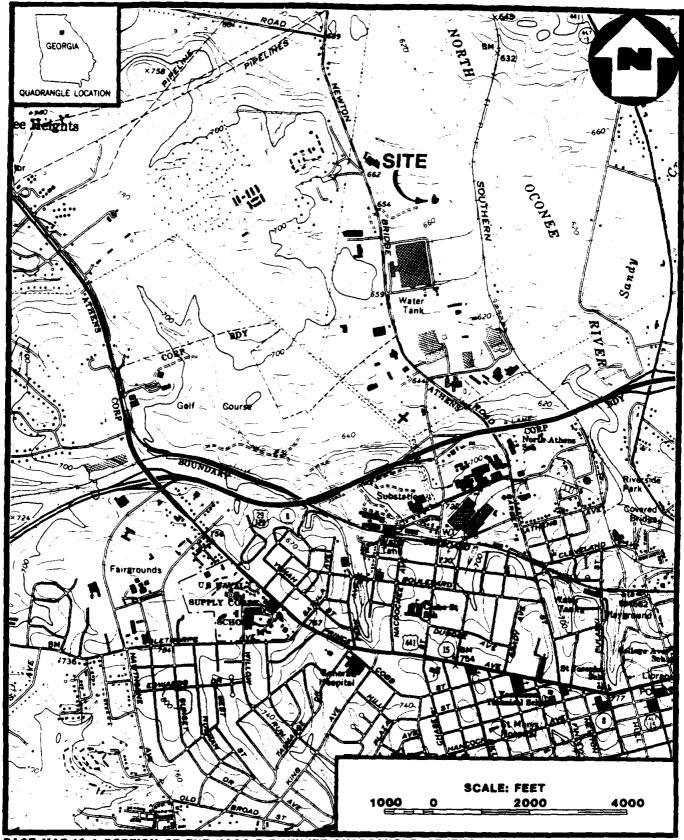
Sometime during 1988, WEC representatives began reviewing all of their facilities to ensure compliance with federal, state, and local environmental regulations. It was at this time that WEC representatives became aware of past disposal practices involving the landfill (Ref. 3). On December 20, 1988, WEC submitted an EPA Notification of Hazardous Waste Site (EPA Form 8900-1) for the Athens facility (Ref. 2).

The Part A Application for this facility was withdrawn in 1982, and the facility is presently classified as a generator of hazardous waste (Ref. 4).

2.2 SITE DESCRIPTION

2.2.1 <u>Site Features</u>

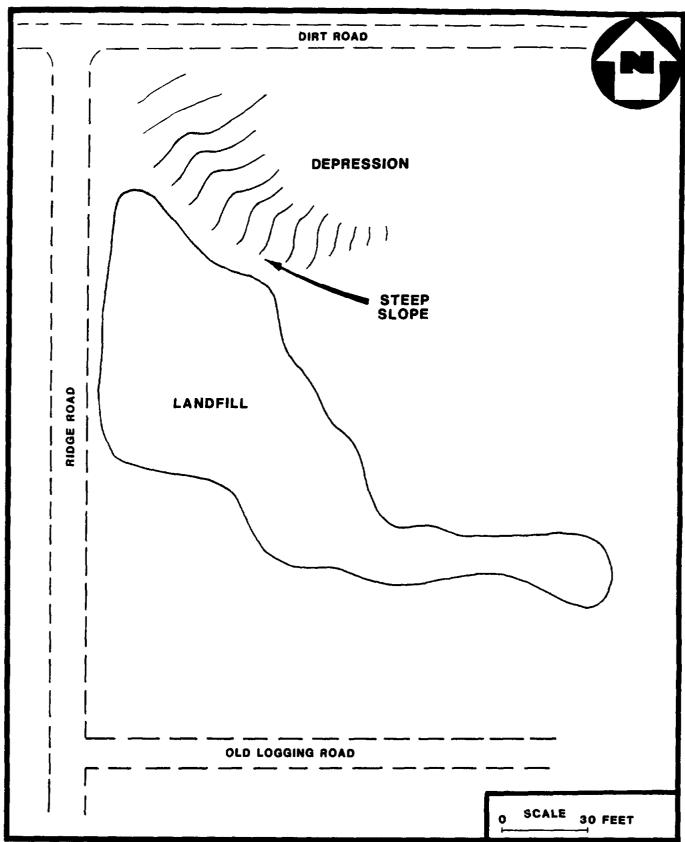
The WEC facility, at 33°58′31.0″ N latitude and 083°23′44.0″ W longitude, is located in an industrial district north of the city of Athens, Clarke County, Georgia (Figure 1) (Appendix A). The entire WEC facility is approximately 237.8 acres (Ref. 2). The landfill, which is located 900 feet northeast of the main facility, is irregularly shaped and consists of approximately 1 acre. The site is located on a ridge, and drainage is to the east and northeast (Figure 2) (Ref. 5, Appendix A). Facility slope is approximately 2.0 percent (Appendix A).



BASE MAP IS A PORTION OF THE USGS 7.5 MINUTE QUADRANGLE, ATHENS WEST, GA. 1984. SITE LOCATION MAP WESTINGHOUSE ELECTRIC CORPORATION ATHENS, GEORGIA

FIGURE 1





SITE LAYOUT MAP
WESTINGHOUSE ELECTRIC
CORPORATION LANDFILL
ATHENS, CLARKE COUNTY, GEORGIA

FIGURE 2



The landfill, which is heavily vegetated with no evidence of any ongoing activities, is readily accessible. An unrestricted dirt road located adjacent to the landfilled area is accessible from the WEC north parking lot. In addition, no fence or barriers to entry are in place around the landfill. The dirt road leading from the north parking lot bounds the site to the north and west. The site is bounded by an old logging dirt road to the south, and woods to the east (Ref. 5).

2.2.2 Waste Characteristics

Westinghouse disposed of halogenated solvents and treated acids and bases resulting from electrical transformer manufacturing processes in a landfill from 1958 to 1970 (Ref. 6). The hazardous waste present at the facility include spent solvents, acids and bases, paint, and oil. The acids are a millure of phosphoric acid and hydrochloric acid, known as bright dip. Other wastes identified by the preliminary assessment were oily waste, solvents, heavy metals, and methyl ethyl ketone (Ref. 1). An identification table of the waste liquids included cleaning mixtures (kerosenes), wire enamel thinners, enamel paint strippers, paint thinners (xylene), wire drawing and rolling lubes, transformer oil, and lubricating oil (Ref. 7). WEC representatives stated that mineral oil was used in the transformers instead of PCBs (Ref. 8).

3.0 REGIONAL POPULATIONS AND ENVIRONMENTS

3.1 POPULATION AND LAND USE

3.1.1 Demography

The study area is located approximately 1 mile north of Athens and is adjacent to industrial properties and rural areas (Appendix A). The population of Athens, Georgia is approximately 45,000 (including students attending the University of Georgia), the major portion of which is encompassed by the southeast quadrant of the 4-mile site radius (Ref. 9). Population density increases rapidly to the south of the WEC site. To the east, north, and west, however, population decreases rapidly (Appendix A). The population distribution is 486 between 0 and 1 mile; 18,718 between 1 and 2 miles; 18,265 between 2 and 3 miles; and 12,415 between 3 and 4 miles (Ref. 10).

3.1.2 <u>Land Use</u>

Within a 4-mile radius of the site, the area is comprised, in descending percentage, of rural/undeveloped, residential, commercial, and industrial property. The nearest residence is located approximately 0.5 mile west-northwest of the landfill. The closest multifamily dwelling, Rolling Ridge Apartments, is located 0.7 mile northwest of the site and consists of sixteen apartment buildings. As seen from the USGS topographic map, the WEC landfill is within 1 mile of the North Athens Elementary School. Students attend 14 other schools, including the University of Georgia, in the 4-mile radius (Ref. 8, Appendix A).

The North Oconee River Park, the closest park to the WEC landfill, is situated along the banks of the North Oconee River approximately 1 mile southeast of the site. The park offers picnicing and fishing (Ref. 8).

The nearest commercial area is located in downtown Athens approximately 2 miles south of the site. This area is a mixture of shops, banks, and restaurants, which comprises the downtown district (Ref. 8).

Areas of dense industrial development are located south of the site. However, the nearest industry, Lyons Textile Mills, is located approximately 0.3 mile northwest of the WEC site (Ref. 8).

3.2 SURFACE WATER

3.2.1 Climatology

The WEC landfill is located within the Piedmont Physiographic Province. Average rainfall near the facility is 44 inches, and mean annual lake evaporation is 42 inches. Average net annual precipitation is 2 inches. The rainy season in the Piedmont Physiographic Province occurs during the warm period from May to August (Ref. 11). The Athens area has a relatively mild climate. Temperatures average 42°F in January and 79°F in July (Ref. 12, p. 2). Average annual rainfall is 48 inches (Ref. 13, p. 43). There are two periods of peak rainfall, one in the late winter and one in mid-summer (Ref. 12, p. 5). Net annual precipitation is 2 inches (Ref. 13, pp. 43, 63). The 1-year, 24-hour rainfall is 3.25 inches (Ref. 14).

3.2.2 Overland Drainage

Surface water runoff follows two patterns at the WEC landfill. Rainwater falling on the west, south, east, and center portions of the site trends in an eastward direction toward a small, swampy basin. The swampy basin is less than an acre in size, and there are no routes for surface water migration from the basin. Surface water runoff for the remaining area of the site (north portion) drains in a northeastward direction to an oval-shaped slight depression. The depression is bounded by the higher ground of the landfilled area to the west, south, and east. A dirt road bounds the north portion of the depression. Surface water that collects in the swampy basin and depression would percolate down to groundwater (Ref. 8). However, during extremely heavy rainfall, surface water may migrate to a swampy region located approximately 1000 feet northeast of the landfill.

3.2.3 Potentially Affected Water Bodies

Water that collects in the swampy region flows in a northeasterly direction for approximately 0.3 mile and drains into the North Oconee River (Refs. 5, 8, Appendix A). The previously mentioned North Oconee River Park is located 2.0 stream miles downgradient from the confluence of the swamp and river (Ref. 8, Appendix A). Also, one of the water intakes for the municipal water supply is located 2.65 stream miles downgradient from the swamp and river confluence. Water is supplied to Athens and surrounding areas by surface water obtained from the North Oconee and Middle Oconee rivers (Ref. 15). The water obtained from the two intakes is treated and mixed prior to distribution. A third intake is located on Sandy Creek. Water is pumped from the intake to a reservoir. The water is allowed to settle and is used only during times when the North and Middle Oconee rivers are low.

The third intake is not located along the surface water migration pathway. The municipal system serves approximately 26,000 connections (Ref. 15).

3.3 GROUNDWATER

3.3.1 Hydrogeology

The site is located in the Piedmont Physiographic Province. The rocks underlying this province are massive igneous and metamorphic rocks of relatively low permeability (Ref. 16, pp. 4, 5).

The aquifer used in the study area can be characterized as a crystalline rock aquifer. In this aquifer, groundwater is stored in the unconsolidated material overlying the crystalline rock and within fractures that have formed in the crystalline rock (Ref. 16, p. 13). The residual soils (regolith) overlying bedrock are capable of storing large quantities of groundwater, and well yields are generally highest in areas that have a thick regolith that is saturated with water (Ref. 17, pp. 8-11).

The site is underlain by amphibolite interlayered with biotite schist and biotite gneiss. Wells intercepting contact zones between these rock units often have increased permeability as do wells that have intersect fault zones. Well yields range from 20 to 225 gallons per minute (gpm), with an average yield of 52 gpm. The average depth of wells in the Athens area is 246 feet with a typical casing depth of 69 feet (Ref. 17, plate 1). Few wells are completed to depths greater than 400 feet due to a decrease in the size and number of fractures within the rock below this depth (Ref. 17, p. 9).

Groundwater recharge occurs in topographic highs and groundwater discharge occurs in topographically low areas. The depth to the water table is also dependent on local topography. The water table may be at or near land surface in stream valleys. However, on steep hills or narrow ridges, the depth to the water table may be much greater (Ref. 17, p. 11).

The aquifer in the regolith is unconfined, and groundwater flow generally follows local topographic gradients (Ref. 17, p. 11). Groundwater flow within fractures of the underlying crystalline rock is influenced by fracture orientation. Wells penetrating deeper fracture systems may intercept groundwater that is under confined conditions.

3.3.2 Aquifer Use

There is very little use of groundwater in the study area. Three private wells were identified within the 3-mile site radius. The closest well is located 1 mile west of the site (Ref. 15).

3.4 SUMMARY OF POTENTIALLY AFFECTED POPULATIONS AND ENVIRONMENTS

The pathways of concern for the site include surface water, air, and onsite exposure. The groundwater pathway is not a concern due to the almost nonexistent use of the aquifer within the 4-mile site radius.

The air and onsite exposure pathways are the primary pathways of concern due to the possible presence of uncontained and contaminated soils. Potentially affected targets within a 4-mile site radius include residents, employees, and students. The population of residents within a 4-mile radius of the site is estimated at 49,884 (Ref. 10). Targets for onsite exposure include employees at the WEC facility and adjacent industrial properties and residents within a 1-mile radius of the site. However, the population within a 1-mile site radius is only 486 (Ref. 10, Appendix A).

Potential for site-related contaminant release to the surface water pathway is unlikely; however, it may be possible during periods of extremely heavy rainfall. Potentially affected targets along the extended surface migration pathway include those persons using the North Oconee River for recreational purposes and the population of 98,800 (26,000 x 3.8 per household) that is served by the Athens Water Department.

the visible trench. East of Line 6, a 30-foot by 30-foot area with magnetic readings greater than 53,000 gammas was detected. Two locations within this area were targeted for sampling. Another anomalous area to the north and west of Line 1 was found. Heavy brush and overgrowth prevented a systematic survey of this location. Figure 3 is a magnetic intensity contour map. Anomalous areas are shown in this figure. The road along the top of the ridge, about 30 feet west of Line 1 was surveyed with the magnetometer after the trucks were moved. No readings above background were detected along the road (Ref. 18).

The site is located in a rural area with no sources of interference for geophysical instruments. The magnetometer was effective in locating magnetic anomalies at this site. Some of the visually disturbed areas did not contain magnetic anomalies. Since some of the waste was reportedly buried in nonmetallic drums, the EM-31 Conductivity Meter would be effective in detecting disturbed areas that did not contain any metallic debris. An EM-31 Conductivity Meter may be used in the future to refine the boundaries of the waste burial area, should removal of the waste be necessary. Appendix D contains field data sheets, as well as additional information on the use and applications of the magnetometer and the conductivity meter.

4.2 SAMPLE COLLECTION

4.2.1 Sample Collection Methodology

All sample collection, sample preservation, and chain-of-custody procedures used during this investigation were in accordance with the standard operating procedures as specified in Sections 3 and 4 of the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

4.2.2 **Duplicate Samples**

Split groundwater samples were requested for groundwater by the WEC representatives. However, a background groundwater sample could not be obtained, and the remaining scheduled groundwater samples were canceled.

4.2.3 Description of Samples and Sample Locations

Nine environmental samples were collected for the investigation: four surface soil samples, three subsurface soil samples, and two sediment samples. Sample codes, descriptions, and locations are present in Table 1 and illustrated in Figures 4 and 5.

The surface soil samples, collected from 2 to 12 inches below land surface (bls), included one background sample and three samples from the landfilled area.

The three subsurface soil samples, including one background sample, were collected between 2 and 5 feet bls. One sample was collected from the landfilled area, and the remaining sample was collected east of the landfill at a location downgradient of surface water runoff.

One sediment sample was obtained from an unnamed intermittent creek northwest of the site and served as the background sample. A second sediment sample was collected at the confluence of the intermittent creek, which had developed into a swampy area, and the North Oconee River located northeast of the site.

4.3 SAMPLE ANALYSIS

4.3.1 Analytical Support and Methodology

All samples collected were analyzed under the Contract Laboratory Program (CLP) and analyzed for all parameters listed in the Target Compound List (TCL). Organic and inorganic analysis of soil samples was performed by Region IV Environmental Protection Agency analytical service laboratory located in Athens, Georgia.

All laboratory analyses and laboratory quality assurance procedures used during this investigation were in accordance with standard procedures and protocols as specified in the <u>Analytical Support Branch Operations and Quality Assurance Manual</u>; United States Environmental Protection Agency, Region IV, Environmental Services Division; revised June 1, 1985 or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the contract analytical laboratory program.

TABLE 1

SAMPLE CODES AND LOCATIONS, AND RATIONALE WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

Sample Code	Location and Rationale	Collection Time	Date	Depth (ft bis).	Remarks
WH-SS-01	Northwest of site from undisturbed area to establish background conditions	1515	05/03	-	
WH-SB-01	Northwest of site from undisturbed area to establish background conditions	1525		5-6	-
WH-SD-01	Northwest of site from an intermittent stream upgradient of landfill to establish background conditions	1525	05/03	-	-
WH-SD-02	Confluence of stream and North Oconee River downgradient of landfill to detect contaminant migration off site	1815	05/03	-	-
WH-SS-02	East area of landfill taken at magnetic anomaly identified during geophysical survey to identify source of contamination	1020	05/04	-	-
WH-SB-02	East area of landfill taken at magnetic anomaly identified during geophysical survey to identify source of contamination	0950	05/04	5-6	-
WH-SS-03	Northwest area of landfill taken at magnetic anomaly identified during geophysical survey to identify source of contamination	1030	05/04	-	-
WH-SB-03	East area of landfill on west border of closed basin to identify contaminant migration from landfill	1150	05/04	2-3	-

WH - Westinghouse Electric

SS - Surface Soil SB - Subsurface Soil SD - Sediment

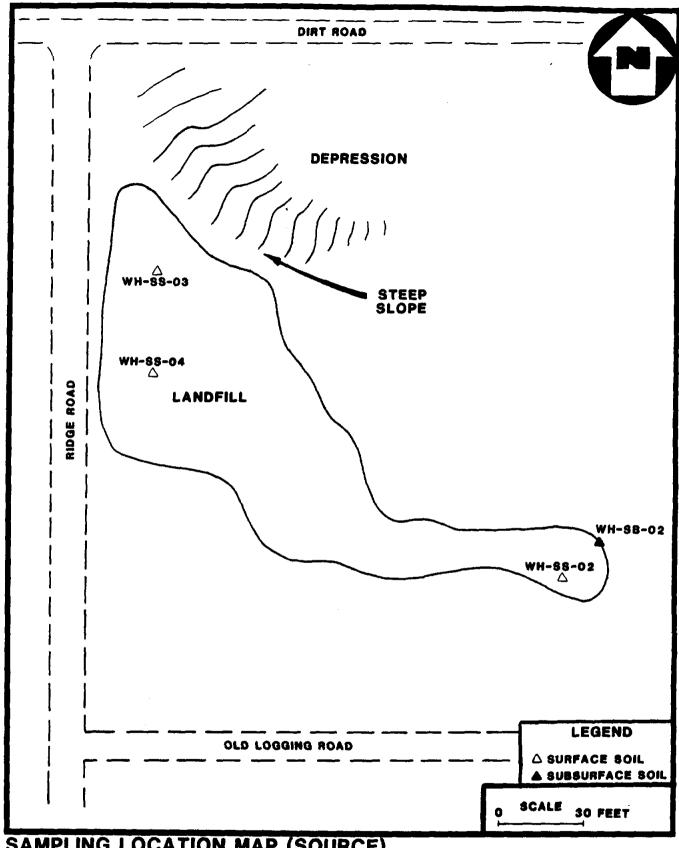
TABLE 1

SAMPLE CODES AND LOCATIONS, AND RATIONALE WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

Sample Code	Location and Rationale	Collection Time	Date	Depth (ft bls).	Remarks
WH-SS-04	Northwest area of landfill taken at magnetic anomaly identified during geophysical survey to identify source of contamination	1120	05/04	-	-

WH - Westinghouse Electric

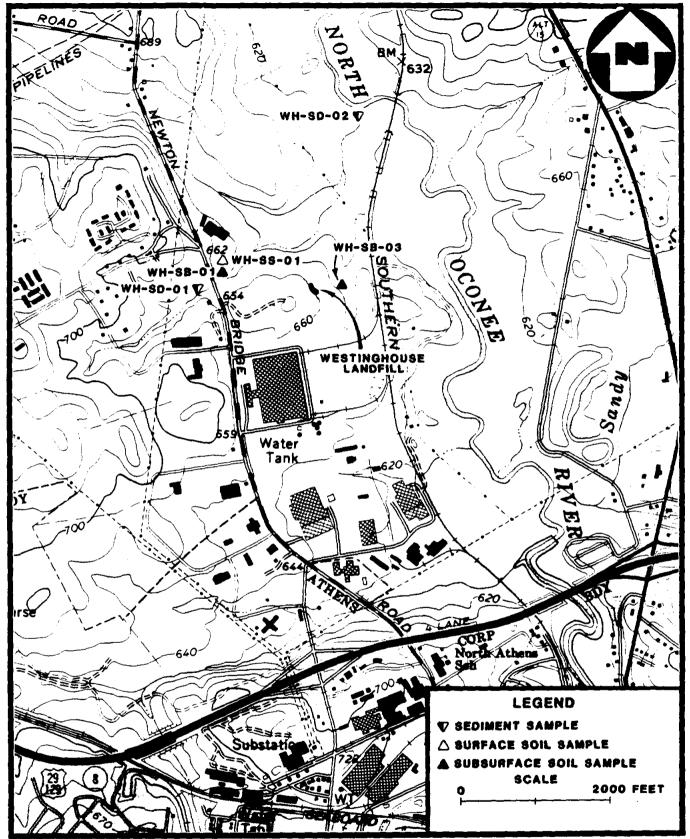
SS - Surface Soil SB - Subsurface Soil SD - Sediment



SAMPLING LOCATION MAP (SOURCE)
WESTINGHOUSE ELECTRIC
CORPORATION LANDFILL
ATHENS, CLARKE COUNTY, GEORGIA

FIGURE 4





SAMPLING LOCATION MAP (NONSOURCE)
WESTINGHOUSE ELECTRIC
CORPORATION LANDFILL
ATHENS, CLARKE COUNTY, GEORGIA

FIGURE 5

CORPORATION

4.3.2 Presentation of Analytical Data Quality

All analytical data were subjected to a quality assurance review as described in the EPA, Environmental Services Division laboratory data evaluation guidelines. In the tables, some of the concentrations of the organic and inorganic parameters have been flagged with a "J". This indicates that the qualitative analysis was acceptable, but the quantitative value has been estimated. A few other compounds are flagged with an "N" indicating that they were detected based on the presumptive evidence of their presence. This means that the compound was tentatively identified, and its detection cannot be used as positive identification of its presence. The complete analytical data sheets are presented in Appendix B.

4.3.3 <u>Presentation of Analytical Results</u>

Throughout the following discussion of analytical results, the concentrations of some of the contaminants detected have been described as "significant". This means that the concentration was either three times that found in the background sample or it was three times the minimum quantitation limit (MQL).

Sample analyses detected several inorganic constituents in the soil and sediment samples. Significant concentrations of chromium, copper, lead, and zinc were found in samples WH-SS-03, WH-SS-04, and WH-SD-02.Cobalt was found in subsurface soil sample WH-SB-03 at 15 mg/kg (3 x MQL). Sample WH-SB-03 also contained 1300 mg/kg manganese (5 x background) and 0.1 mg/kg mercury (20 x MQL). Inorganic analytical results can be found in Tables 2, 3, and 4.

A large number of organic constituents were found in the surface soil samples, WH-SS-02, WH-SS-03, and WH-SS-04. Sample WH-SS-02 contained a total of 4 mg/kg (estimated) of substituted benzenes (tentatively identified), 200 mg/kg unidentified compounds, and more than 450 mg/kg polynuclear aromatic (PNA) compounds including 16 mg/kg phenanthrene (9.4 x MQL), 78 mg/kg fluoranthene (46 x MQL), 67 mg/kg pyrene (39 x MQL), 28 mg/kg benzo (a) anthracene (16 x MQL), 25 mg/kg chrysene (15 x MQL), 51 mg/kg benzo (b and/or k) fluoranthene (30 x MQL), and 24 mg/kg benzo-apyrene (14 x MQL). The other PNAs are shown as estimated concentrations, and some of them are tentatively identified. These compounds are components of lubricating oils.

TABLE 2

SUMMARY OF INORGANIC ANALYTICAL RESULTS SURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Background	Onsite			
PARAMETERS (mg/kg)	WH-SS-01	WH-SS-02	WH-SS-03	WH-SS-04	
ALUMINUM	30,000	19,000	28,000	18,000	
ANTIMONY	-	-	-	100	
BARIUM	160	92	130	9000	
CALCIUM	-	2200		1800	
CHROMIUM	14	28	2400	8700	
COBALT	15	5.9	-	55	
COPPER	7 5	51	23,000	9900	
IRON	26,000	14,000	29,000	29,000	
LEAD	25	140	10,000	9000	
MAGNESIUM	8300	1900	3500	1000	
MANGANESE	800	320	500	210	
MERCURY	-	-	0.05	0 10	
NICKEL.	-	6		58	
POTASSIUM	7800	1800	1	-	
VANADIUM	61	43	70	46	
ZINC	53	100	3000	10,000	
CYANIDE	-	0.25	-	1.2	
TITANIUM	1800	710	1100	170	
YTTRIUM	14	13	-	-	
TRONTIUM	-	8.2	1	120	

Material analyzed for but not detected above minimum quantitation limit

TABLE 3

SUMMARY OF INORGANIC ANALYTICAL RESULTS SUBSURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Background	Onsite	Downgradient
PARAMETERS (mg/kg)	WH-SB-01	WH-SB-02	WH-SB-03
ALUMINUM	27,000	55,000	50,000
BARIUM	26	90	60
CALCIUM	-	580	290
CHROMIUM	29	34	56
COBALT		-	15
COPPER	34	22	13
RON	45,000	53,000	34,000
LEAD	29	42	21
MAGNESIUM	1100	2100	1200
MANGANESE	250	310	1300
MERCURY	-		0.1
NICKEL	14	-	11
POTASSIUM	1100	2500	1200
VANADIUM	120	150	81
ZINC	26	31	40
CYANIDE	-		0.33
TITANIUM	940	1900	1200
YTTRIUM	9.7		1

Material analyzed for but not detected above minimum quantitation limit

TABLE 4

SUMMARY OF INORGANIC ANALYTICAL RESULTS SEDIMENT SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Background	Downgradient
PARAMETERS (mg/kg)	WH-SD-01	WH-SD-02
ALUMINUM	4400	46,000
BARIUM	21	180
CALCIUM	150	1200
Chromium	15	47
COBALT		18
COPPER	3.9	30
RON	16,000	50,000
EAD	6.3	45
MAGNESIUM	710	1900
VIANGANESE	150	4500
POTASSIUM	820	1400
/ANADIUM	42	120
ZINC	12	57
TITANIUM	410	1000
/TTRIUM	7.1	25
TRONTIUM		12

Material analyzed for but not detected above minimum quantitation limit

Sample WH-SS-03 contained 130 mg/kg of fatty acids or fatty acid derivatives, tentatively identified with estimated concentrations ranging from 40 to 2000 mg/kg. Fatty acids are components of drawing and rolling compounds (greases). This sample also contained an estimated 80 ug/kg xylene (2 x MQL) and a total estimated concentration of 75 mg/kg of seven tentatively identified alkyl benzenes, which are components of kerosenes and other solvents. This sample also contained a significant concentration of PCBs, 1100 ug/kg Aroclor 1242 (18 x MQL) and an estimated 350 ug/kg tentatively identified Aroclor 1260 (5.6 x MQL) and smaller concentrations of Aldrin, Dieldrin, and 4,4'-DDD.

Sample WH-SS-04 contained a total of over 22,000 mg/kg (2.2%) of alkyl substituted benzenes, including 1100 mg/kg ethyl benzene (28,200 x MQL) and 7100 mg/kg xylenes (182,000 x MQL). These are solvents used by Westinghouse in the manufacturing process and listed as components of the waste streams. The other substituted benzenes, tentatively identified with estimated concentrations ranging from 10 to 6000 mg/kg, are components of kerosene and fuel oils. This sample contained a total concentration of 2400 mg/kg PNAs including 620 mg/kg naphthalene (365 x MQL) and 240 mg/kg 2-methylnaphthalene (141 x MQL), 6200 mg/kg of fatty acids, 560 mg/kg phenols (antioxidant, surfactant, wood preservative, and insecticide) including 180 mg/kg 4-nitrophenol (54 x MQL) and 180 mg/kg 2, 4-dinitrophenol (54 x MQL), 290 mg/kg nonaromatic hydrocarbons, and 2000 mg/kg unidentified compounds and petroleum product. The contaminants in this sample are components of kerosene, solvents, and lubricants.

Sediment sample WH-SD-02 contained an estimated 6000 ug/kg of hexadecanoic acid (3 x background) and an estimated 700 ug/kg of octadecanoic acid (tentatively identified) and petroleum product.

Results of subsurface soil samples revealed no analytical significant contamination of organic constituents.

Organic analytical results can be found in Tables 5, 6, and 7.

SUMMARY OF ORGANIC ANALYTICAL RESULTS SURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Backgroun		Onsite	
PARAMETERS (ug/kg)	WH-SS-01	WH-55-02	WH-SS-03	WH-SS-04
PURGEABLE COMPOUNDS				
ETHYL BENZENE		-		1.100,000
(M- AND/OR P-)XYLENE		-	-	17,000,000
O-XYLENE	-	-	811	5.400,000
TRIMETHYLBENZENE	-		200JN	5,000,000JN/
PETROLEUM PRODUCT	-	-	N	-
EXTRACTABLE COMPOUNDS				
NAPHTHALENE	-		-	620,000
2-METHYLNAPHTHALENE		-	-	240,000
ACENAPHTHYLENE		ر2800		
4-NITROPHENOL	-		-	180,000
2,4-DINITROPHENOL	-		-	180.000
PHENANTHRENE		16,000	1	13,0001
ANTHRACENE	-	52001	-	-
FLUORANTHENE		78,000	-	-
PYRENE		67,000	-	
BENZO(A)ANTHRACENE		28,000		-
CHRYSENE		25,000	1	
BENZO(B AND/OR	-	51,000	-	-
BENZO-A-PYRENE		24,000	-	-
NDENO (1,2,3-CD) PYRENE	-	10,000 J	-	-
DIBENZO(A,H)ANTHRACENE	-	3700J	<u> </u>	-
BENZO(GHI)PERYLENE		95001	-	-
HEXADECANOIC ACID	1000JN		2E6JN	4E6JN
OCTADECANOIC ACID		-	700,000JN	1E6JN
DIMETHYLBUTENYLIDENE)BISBEN	-	2000JN		
METHYLPHENANTHRENE	-	2000JN	-	-
YCLOPENTAPHENANTHRENE	-	6000JN	-	
HENYLNAPHTHALENE	-	30001N	-	

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Backgroun	Backgroun Onsite		
PARAMETERS (ug/kg)	WH-SS-01	WH-SS-02	WH-SS-03	WH-55-04
BIS(BUTADIYNEDIYL)BENZENE	-	2000)N	-	-
BENZONAPHTHOFURAN	-	90001N/3		
PHENANTHRENECARBONITRILE	<u> </u>	30001N		
METHYLFLUORANTHENE		20,000JN/4	7	
BENZOFLUORENE	-	N10008		
BENZONAPHTHOTHIOPHENE	-	7000JN	-	
BENZOFLUORANTHENE (NOT B OR	•	40,000JN/2	_	1
BENZOPHENANTHRENONE		20001N	-	
TETRADECANOIC ACID	-	-	200,000JN	200,000JN
METHYLPROPYLBENZENE			5000JN	N(000,000
DIETHYLMETHYLBENZENE	-	-	9000JN/2	100,000JN
(DIMETHYLPROPYL)BENZENE			60001N	1E6JN/6
DIMETHYL(METHYLETHYL)BENZENE	-		10,000JN/2	1E6JN/6
ETHYLTRIMETHYLBENZENE	-	-	4000JN	NL000,0001
HEXANOIC ACID		-	60001N	-
COPAENE	·	-	30001N	
HEPTADECANOL	-	-	40,000JN/2	1
PENTADECANOIC ACID		-	40,000JN	-
TETRADECANAL	-	T .	40,000JN	1
HEPTADECANOIC ACID		-	NL000,001	
THYLDIMETHYLBENZENE			40,000JN/5	6E6JN/7
PROPYCYCLOHEXANE			-	10,000JN
PROPYLBENZENE			<u>-</u>	30.000JN
THYLMETHYLBENZENE				200,000JN/3
RIMETHYLBENZENE	-		1	5/N1000,006
PROPENYLCYCLOHEXANE		-	<u> </u>	Nr000'007
DIHYDROINDENE				100,000JN
METHYLPROPYL)BENZENE	-		-	20,000JN
UTYLBENZENE		1		N(000,000

⁻ Material analyzed for but not detected above minimum quantitation limit

J Estimated value

N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Backgroup	1	Onsite		
PARAMETERS (ug/kg)	WH-SS-01	WH-SS-02	WH-SS-03	WH-55-04	
METHYLDECAHYDRONAPHTHALENE		-		20,000JN	
PENTYCYCLOHEXANE			-	30,000 N	
METHYLDIHYDROINDENE		-	-	700,000JN	
DIETHYLBENZENE	-	1		1E6JN	
TETRADYDRONAPHTHALENE		-		200,000JN	
((METHYLBENZYL)SULFONYL)PHEN		-	-	N1000,001	
DIMETHYDIHYDROINDENE		-	· .	200,000JN/2	
DIMETHYL(METHYLPROPYL)BENZEN	-	-	-	90,000JN/2	
1-METHYLNAPHTHALENE		-		60,000JN	
DIMETHYLNAPHTHALENE	-	I		AL000,02	
HEXAMETHYLOCTAHYDROINDENE		-		100,000JN	
BIS(DIMETHLETHYL)METHYLPHENO	-	-		NL000,001	
TRIMETHYLNAPHTHALENE	-	-		20,000JN/2	
METHYL(METHYLETHYL)NAPHTHALE	-	-	7	NL000,0E	
DIMETHYLPHENANTHRENE	-	-	-	30,000,01	
HEXADECENOIC ACID	-	-	-	1E6JN	
ETHYL(METHYLETHYL)BENZENE		-	1	2E6JN	
METHYLPROPYLCYCLOHEXANE	-	-		50,000JN/2	
PETROLEUM PRODUCT			N	N	
UNIDENTIFIED COMPOUNDS/NO.	-	200,0001/2	2E6JN/11	2E6J/10	
PESTICIDE\PCB COMPOUNDS					
ALDRIN		T -	48	23	
DIELDRIN		-	431	66	
1,4'-DDD (P,P'-DDD)	-	-	74		
PCB-1242 (AROCLOR 1242)	-	-	1100		
PCB-1260 (AROCLOR 1260)	-		350JN		

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SUBSURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Background	Onsite	Downgradient
PARAMETERS (ug/kg)	WH-SB-01	WH-SB-02	WH-5B-03
EXTRACTABLE COMPOUNDS			
BENZO(B AND/OR K)FLUORANTHENE	-	ر 170	1
HEXADECANOIC ACID	5000JN	-	7000N
OCTADECANOIC ACID	400JN	-	700JN
TETRADECANOIC ACID			2001N
PESTICIDE PCB COMPOUNDS			
4,4'-DDT (P,P'-DDT)		8.13	-

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SEDIMENT SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

PARAMETERS (ug/kg)	Background WH-SD-01	Downgradient WH-SD-02
HEXADECANOIC ACID	2000JN	N(0009
OCTADECANOIC ACID		700JN
PETROLEUM PRODUCT	-	N

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

5.0 SUMMARY

The operations at the WEC facility included manufacturing and repairing overhead distribution transformers, a process that has been conducted since 1958. The results of this investigation revealed the presence of organic and inorganic contaminants, consistent with the WEC operations, in surface soil samples in excess of background conditions. Access to the site could be obtained by nearby residents, and the uncontained contaminated surface soils could be dispersed by the wind. Potentially affected targets include employees at the WEC facility and adjacent industrial properties and the 486 residents residing within a 1-mile radius of the site. Also, the population within the 4-mile site radius is estimated at 49,884.

The results of sediment sampling at the confluence of the swampy region and the North Oconee River revealed the presence of ten inorganic contaminants with significantly higher concentrations than background conditions. Although there were no visibly discernable pathways for surface water migration from the landfill, contaminant migration from the site may be possible during heavy rainfall. One of the municipal surface water intakes for the city of Athens is located 2.65 stream miles from the WEC landfill. The municipal system serves approximately 98,800 persons. Other possible explanations for the presence of the inorganic contaminants could be infiltration of surface water runoff to groundwater or the influence of industrial properties located north and adjacent to the swampy region.

The groundwater pathway is not a concern due to the lack of potentially affected targets. However, because the potentially affected population is large for the surface water pathway, and there are potentially affected targets for the surface water, air and onsite pathways, FIT 4 recommends a Listing Site Inspection, Phase I, be conducted at the WEC landfill.

REFERENCES

- 1. Potential Hazardous Waste Site Preliminary Assessment (EPA Form 2070-12) and attachments for Westinghouse Electric Corporation. Filed by Gilda Knowles, Georgia Department of Natural Resources, September 20, 1985.
- 2. EPA Notification of Hazardous Waste Site (EPA Form 8900-1) for Westinghouse Electric Corporation, Athens, Clarke County, Georgia. Filed by E.J. Fogel, Plant Manager, December 13, 1988.
- 3. Samuel R. Pitts, Vice-President, Environmental Affairs, Westinghouse Electric Corporation, Pittsburg, Pennsylvania, letter to USEPA, December 20, 1988. Subject: EPA Notification of Hazardous Waste Site.
- 4. Will Slater, HWDMS, telephone conversation with R. Hoffmann, NUS Corporation, April 5, 1990. Subject: Interim status of WEC facility.
- 5. NUS Corporation Field Logbook No. F4-1378 for Westinghouse Electric Corporation, TDD No. F4-8903-40. Documentation of Screening Site Inspection, May 3-4, 1989.
- 6. Kenneth A. Lucas, "Preliminary Reassessment, Westinghouse Electric Corporation, Athens, Clarke County, Georgia," prepared for the Environmental Protection Agency, March 8, 1989.
- 7. Charles K. Gorham, Quality Assurance Supervisor, Westinghouse Electric Corporation, letter to George M. Saad, Environmental Engineer, Solid Waste Management Section, Georgia Environmental Protection Division, June 29, 1981. Subject: Liquid wastes generated at Westinghouse.
- 8. NUS Corporation Field Logbook No. F4-1349 for Westinghouse Electric Corporation, TDD No. F4-8903-40. Documentation of onsite reconnaissance, April 17, 1989.
- 9. Anne Spence, Athens, Georgia Chamber of Commerce, telephone conversation with R. Hoffmann, NUS Corporation, November 6, 1989. Subject: Population of Athens, Georgia.

- 10. U.S. Environmental Protection Agency, <u>Graphical Exposure Modeling Systems (GEMS) Data</u>
 Base, compiled from U.S. Bureau of the Census data (1980).
- 11. U.S. Department of Commerce, <u>Climatic Atlas of the United States</u> (Washington, D.C.: GPO, June 1968) Reprint: 1983, National Oceanic and Atmospheric Administration.
- 12. U.S. Department of Commerce, <u>Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1951-80 in Georgia</u> (National Climatic Center, Ashville, N.C. 1982), pp. 2, 5.
- 13. Dean B. Radtke, Charles W. Cressler, Howard A. Pearlman, Harry E. Blanebard, Jr., Keith W. McFadden, and Rebekah Brooks, <u>Occurrence and Availability of Ground Water in the Athens Region, Northeastern Georgia</u>, Water-Resources Investigations Report 86-4075 (U.S. Army Corps of Engineers, 1986), pp. 8-11, plate 1.
- 14. U.S. Department of Commerce, <u>Rainfall Frequency Atlas of the United States</u>, Technical Paper Number 40 (Washington, D.C.: GPO, 1961).
- 15. Rebecca Hoffmann, NUS Corporation; memo to file for Westinghouse Electric Corporation, August 12, 1989. Subject: Conversation with Roy Burns, Water Superintendent for Athens Water Department, concerning extent of water lines.
- 16. J.S. Clarke, S.A. Longsworth, C.N. Joiner, M.F. Peck, K.W. McFadden, and B.J. Milby, <u>Groundwater Data for Georgia</u>, Open File Report 87-367 (Georgia Department of Natural Resources Environmental Protection Division and Georgia Geologic Survey), pp. 4-5.
- 17. U.S. Geological Survey, <u>National Water Summary</u>: <u>Hydrologic Events, Selected Water Quality Trends, and Ground-Water Resources</u>, Water Supply Paper 2275 (1984), p. 162.
- 18. NUS Corporation Field Logbook No. F4-1377 for Westinghouse Electric Corporation, TDD No. F4-8904-04. Documentation of geophysical survey, May 3, 1989.

APPENDIX A

OVERSIZED DOCUMENT

APPENDIX B



EPA-REGION IV ESD. ATHENS. GA 06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL ** PROG ELEM: NSF COLLECTED BY: R YOUNG * * SOURCE: WESTINGHOUSE ELECT. .. CITY: ATHENS ST: GA ** STATION ID: SB-01 BACKGROUND SUBSURFACE SOIL COLLECTION START: 05/03/89 1550 STOP: 00/00/00 ** ** MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 5 OU SILVER 250U CALCTUM ARSENIC 150 1100 MAGNESIUM BORON NA 45000 TRON 26 BARIUM 500U SCDIUM 2.5Ŭ BERYLLIUM 1100 POTASSIUM 2.50 5.00 CADMIUM 22 PERCENT MOISTURF COBALT CHROMIUM 29 34 COPPER 5. OU MOLYBDENUM 14 NICKEL 29 150 LEAD ANTIMONY 200 SELENIUM 120 TIN 5.00 STRONTIUM **25U** TELLURIUM 940 TITANIUM 50U THALLIUM VANADIUM 120 VITRIUM 9 7 ZINC ZIRCONIUM ÑĀ 0.050 MERCURY ALUMINUM 27000

REMARKS

250

MANGANESE

REMARKS

EPA-REGION IV ESD. ATHENS, GA. 06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1630 STOP: 00/00/00 * * SOURCE: WESTINGHOUSE ELECT. .. 4 4 * * STATION ID: SD-O1 BACKGROUND SEDIMENT SOIL ** . . ** MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 2 OU SILVER 150 CALCIUM 6. OU ARSENIC 710 MAGNESIUM NA BORON 16000 TRON 21 BARIUM 2000 SODIUM 1. OU BERYLLIUM 820 POTASSIUM 1.OU CADMIUM 20 PERCENT MOISTURE 2. OU COBALT 15 CHROWIUM 3.9 COPPER 2.00 MOLYBDENUM NICKEL 4. OU 6.3 LEAD 6 ดบี ANTIMONY SELENTUM 8,00 5. QU TIN 2 00 STRONTIUM 10U TELLURIUM 410 TITANIUM 200 THALLTUM 42 VANADIUM 7. 1 YTIRIUM 12 ZINC NA ZIRCONIUM O. OSU MERCURY 4400 ALUMINUM 150 MANGANESE

REMARKS

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REMARKS

EPA-REGION IV ESD. ATHENS. GA. 06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA .. STATION ID: SS-01 BACKGROUND SURFACE SOIL COLLECTION START. 05/03/89 1530 STOP: 00/00/00 * * MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 3 OU SILVER 9.OU ARSENIC NA BORON 1500 CALCTUM 8300 MAGNESIUM 26000 TRON 160 BARIUM 3GOU SODIUM 1.50 BERYLLIUM 7800 POTASSIUM 1.50 CADMIUM PERCENT MOISTURE 15 COBALT 14 CHROMIUM 7.5 COPPER 3.00 MOLYBDENUM 6.00 NICKEL 25 LEAD 9. ÕŬ ÄNTIMONY 120 SELENIUM TIN 7.5U 3.00 STRONTIUM TELLURIUM 15U 1800 TITANIUM 300 THALLIUM VANADIUM 61 14 VITRIUM 53 ZINC

REMARKS

NA ZIRCONIUM O OSU MERCURY 30000 ALUMINUM 800 MANGANESE

REMARKS

EPA-REGION IV ESD, ATHENS, GA. 06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG * * . SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1005 STOP: 00/00/00 CITY: ATHENS 4 4 . . STATION ID: SB-02 SUBSURFACE SOIL #2 ** ** . . MG/KG 7 OU SILVER MG/KG 580 CALCTUM ANALYTICAL RESULTS ANALYTICAL RESULTS 21U ARSENIC 2100 MAGNESIUM NA BORON 53000 TRON 90 BARIUM 700U SODIUM 3.5Ŭ BERYLLIUM 2500 POTASSIUM 3 50 7.00 CADMIUM 21 PERCENT MOISTURE COBALT CHROMIUM 34 22 COPPER 7. OU MOLYBDENUM 14U NICKEL 42 LEAD 21U ANTIMONY 28U SELENIUM 180 TIN STRONTIUM 7. QU TELLURIUM **3**50 1900 TITANIUM 700 THALLIUM VANADIUM 150 7 QU ALLISTUM 31 ZINC

REMARKS

NA

O. OSU MERCURY 55000 ALUMINUM 310 MANGANESE

ZIRCONIUM

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM FPA-REGION IV FSO ATHENS GA

EPA-REGION IV ESD. ATHENS. GA. 06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. STATION ID: SD-02 SEDIMENT SOIL #02 .. CITY: ATHENS CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1815 STOP: 00/00/00 ** * * . . . MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 6 OU SILVER 1200 CALCIUM 180 ARSENIC 1900 MAGNESIUM NA BORON 50000 TRON 180 BARIUM GOOU SODIUM 3.00 BERYLLIUM 1400 POTASSIUM 3 OU CADMIUM 45 PERCENT MOISTURE 18 COBALT 41 CHROMIUM 30 COPPER MOLYBDENUM 6. QU NICKEL 120 45 LEAD ANTIMONY 180 240 SELENIUM 150 TIN STRONTIUM TELLURIUM 12 30Ū 1000 TITANIUM 60U THALLIUM 120 VANADIUM YTERTUM 57 ZINC NA ZIRCONIUM 57 0.050 MERCURY 46000 ALUMINUM

REMARKS

4500 MANGANESE

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. * * PROG ELEM: NSF COLLECTED BY: R YOUNG ** CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1020 STOP: 00/00/00 CITY: ATHENS # # STATION ID: SS-02 SURFACE SOIL #02 * * * * * * MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 2 OU STIVER 2200 CALCTUM 6. OU ARSENIC 1900 MAGNESIUM BORON NA 14000 TRON

92 BARIUM 200U SODIUM 1.00 BERYLLIUM 1800 POTASSIUM 1 00 CADMIUM 13 PERCENT MOISTURE 5.9 COBAL T CHROMIUM 28 51 COPPER 2. OU MOLYBOENUM 6.0 NICKEL 140 LEAD ANTIMONY 6.00 8.00 SELENTUM

STRONTIUM 8.2 100 TELLURIUM 710 TITANIUM 20Ŭ THALL IUM VANADIUM 43 13 VITRIUM ZINC ZIRCONIUM MERCURY 100 NA 0.050 19000 ALUMINUM 320 MANGANESE

REMARKS

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REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA. 06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1225 STOP: 00/00/00 . . SOURCE: WESTINGHOUSE ELECT. ** STATION ID: SB-03 SUBSURFACE SOIL #03 * * ** * * MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 5.00 SILVER 150 ARSENIC 290 CALCTUM 1200 MAGNESIUM NA BORON 34000 TRON 60 BARTUM 500U SCDIUM 2.5Ŭ BERYLLIUM 1200 POTASSIUM 2.50 CADMIUM 19 PERCENT MOISTURE 15 COBALT 56 CHROMIUM 13 COPPER 5.00 MOLYBDENUM 11 NICKEL 21 LEAD ANTIMONY 150 200 SELENIUM 12U TIN 5. OU STRONTIUM 250 TELLURIUM 1200 TITANIUM

REMARKS

TELLURIUM

MERCURY 50000 ALUMINUM 1300 MANGANESE

SOU THALLTUM VANADIUM

81 5 OU YITRIUM 40 ZINC NA ZIRCONIUM

0.1

REMARKS

EPA-REGION IV ESD, ATHENS, GA. 06/09/89 METALS DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1035 STOP: 00/00/00 PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. * * STATION ID: SS-03 SURFACE SOIL #03 * * MG/KG MG/KG ANALYTICAL RESULTS ANALYTICAL RESULTS 500 STIVER 2500U CALCIUM 3500 MAGNESIUM 29000 TRON 5000U SODIUM 150U ARSENIC NA BORON 130 BARIUM 250 BERYLLIUM 250 CADMIUM 10000U POTASSIUM 33 PERCENT MOISTURE 50U COBALT 2400 CHROMIUM 23000 COPPER 500 MOLYBDENUM 1000 NICKEL 10000 LEAD 1500 ANTIMONY 2000 SELENIUM 1200 TIN 500 STRONTIUM 2500 TELLURIUM 1100 TITANIUM 5000 THALLIUM 70 VANADIUM 500 YITRIUM 3000 ZINC NA ZIRCONIUM

REMARKS

0.05 MERCURY 28000 ALUMINUM 500 MANGANESE

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. PROG ELEM: NSF COLLECTED BY: R YOUNG . CITY: ATHENS ST: GA . STATION ID: SS-04 SURFACE SOIL #04 COLLECTION START: 05/04/89 1120 STOP: 00/00/00 * * ** MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 250 SILVER 750 ARSENIC 1800 CALCTUM 1000 MAGNESIUM NA BORON 29000 TRON 9000 BARIUM 2500U SODIUM 12U BERYLLIUM 5000U POTASSIUM CADMIUM 120 29 PERCENT MOISTURE COBALT 55 8700 CHROMIUM 9900 COPPER 25U MOLYBDENUM 58 NICKEL 9000 LEAD ANTIMONY 100 1000 SELENIUM 62U TIN 120 STRONTIUM 1200 TELLURIUM TITANIUM 170 250Û THALL I UM 46 VANADIUM 25Ū VITRIUM 10000 ZINC NA ZIRCONIUM 0.10 MERCURY 18000 ALUMINUM

REMARKS

210 MANGANESE

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL
 SOURCE: WESTINGHOUSE ELECT.

PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS

ST: GA PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1530 STOP: 00/00/00 ** * * STATION ID: SS-01 BACKGROUND SURFACE SOIL * *

RESULTS UNITS PARAMETER 0.25U MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT

* *

PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. PROG ELEM: NSF COLLECTED BY: R YOUNG

CITY: ATHENS ST: GA STATION ID: SS-02 SURFACE SOIL #02 COLLECTION START: 05/04/89 1020 STOP: 00/00/00

** * * * *

> RESULTS UNITS PARAMETER 0.25 MG/KG CYANIDE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1035 STOP: 00/00/00 4 4 * * SOURCE: WESTINGHOUSE ELECT. * * * * STATION ID: SS-03 SURFACE SOIL #03 * * * *

> RESULTS UNITS PARAMETER D. 30U MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL
SOURCE: WESTINGHOUSE ELECT.
STATION ID: SS-04 SURFACE SOIL #04

PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL
CITY: ATHENS
ST. GA
COLLECTION START: 05/04/89 1120 STOP: 00/00/00

RESULTS UNITS PARAMETER
1.2 MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

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SPECIFIED ANALYSIS DATA REPORT

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PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG

SOURCE: WESTINGHOUSE ELECT. ST: GA CITY: ATHENS COLLECTION START: 05/03/89 1550 STOP: 00/00/00 STATION ID: SB-01 BACKGROUND SUBSURFACE SOIL

RESULTS UNITS PARAMETER 0.26U MG/KG CYANIDE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE TYPE: SOIL
SOURCE: WESTINGHOUSE ELECT.
STATION ID: SB-02 SUBSURFACE SOIL #2

PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE TYPE: SOIL
CITY: ATHENS
ST. GA
COLLECTION START: 05/04/89 1005 STOP: 00/00/00

RESULTS UNITS PARAMETER 0.25U MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL

SOURCE: WESTINGHOUSE ELECT.

STATION ID: SB-03 SUBSURFACE SOIL #03

PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL

CITY: ATIIENS

COLLECTION START: 05/04/89 1225 STOP: 00/00/00

RESULTS UNITS PARAMETER
0.33 MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA SOURCE: WESTINGHOUSE ELECT.
STATION ID: SD-01 BACKGROUND SEDIMENT SOIL * * COLLECTION START: 05/03/89 1630 STOP: 00/00/00 * *

> RESULTS UNITS PARAMETER 0.25U MG/KG CYANIDE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

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05/18/89

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SPÉCIFIED ANALYSIS DATA REPORT

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PROG ELEM: NSF COLLECTED BY: R YOUNG

PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT.
STATION ID: SD-02 SEDIMENT SOIL #02 CITY: ATHENS ST: GA

* * COLLECTION START: 05/03/89 1815 STOP: 00/00/00 * * ** * *

> RESULTS UNITS PARAMETER 0.36U MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS, GA.

EPA-REGION IV E	ESD, ATHENS, GA.	06/13/89
PURGEABLE ORGANICS DATA REPORT		• -• -
PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-01 BACKGROUND SURFACE SOIL	PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1530 STOP: 00/00/	** ** '()()
UG/KG ANALYTICAL RESULTS	UG/KG ANALYTICAL RESULTS	
CHLOROMETHANE 39U VINYL CHLORIDE 39U BROMOMETHANE 39U CHLOROETHANE 39U CHLOROETHANE 39U TRICHLOROETHENE(1,1-DICHLOROETHYLENE) 39OU ACLONE 39OU ACLONE 39OU CARBON DISULFIDE 39U TRANS-1,2-DICHLOROETHENE 39U TRANS-1,2-DICHLOROETHENE 39U VINYL ACETATE 39U VINYL ACETATE 39U CIS-1,2-DICHLOROETHENE 39U 2,2-DICHLOROPROPANE 39U METHYL ETHYL KETONE 39U BROMOCHLOROMETHANE 39U CHLOROFORM 39U 1,1,1-TRICHLOROETHANE 39U 1,1,1-TRICHLOROETHANE 39U 1,2-DICHLOROPROPENE 39U TRANS-1,2-DICHLOROETHANE 39U TRANS-1,2-DICHLOROETHANE 39U TROCHOROMETHANE 39U TROCHOROMETHANE 39U TROCHOROPROPENE 39U TROCHOROFTHENE(1KICHLOROETHYLENE) 39U TRICHLOROFTHENE(1KICHLOROETHYLENE) 39U DIBROMOMETHANE 39U DIBROMOMETHANE	39U CIS 1,3-DICHLOROPROPENE 39U MFTHYL ISUMUTYL KETONE 39U TOLUENE 39U TRANS-1,3 DICHLOROPROPENE 39U 1, 2-IRICHLOROFTHANE 39U 1, 3-DICHLOROPROPANE 39U METHYL BUTYL KETONE 39U DIBROMOCHLOROMETHANE 39U CHLOROBENZENE 39U CHLOROBENZENE 39U ETHYL BENZENE 39U ETHYL BENZENE 39U O-XYLENE 39U STYRENE 39U STYRENE 39U BROMOFORM 39U BROMOFORM 39U BROMOFORM 39U BROMOFORM 39U BROMOFORM 39U BROMOFORM 39U 1,2,2-TETRACHLOROETHANE 39U 1,2,2-TETRACHLOROETHANE 39U 1,2,2-TETRACHLOROETHANE 39U 1,2,3-TRICHLOROPROPANE 39U 1,2,3-TRICHLOROPROPANE 39U 1,2-DICHLOROBENZENE 39U 1,3-DICHLOROBENZENE 39U 1,3-DICHLOROBENZENE 39U 1,2-DICHLOROBENZENE 39U 1,2-DICHLOROBENZENE	

REMARKS

REMARKS

PURGEABLE OR	RGANICS DATA REPORT		,,
** SOURCE:	T NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL: WESTINGHOUSE ELECT. N ID: SS-02 SURFACE SOIL #02	CITY: ATHENS STEET OF/OA/89 1020 ST	TOP: 00/00/00 **
UG/KG	ANALYTICAL RESULTS	UG/KG ANALYTICAL RESULTS	,
41U CH 41U VI 41U BR 41U CH 41U TR 41U TR 41OU CA 41U TR 41U TR 41U CI 41U BR 41U BR 41U CA 41U BR 41U TR 41U TR 41U TR 41U TR 41U TR 41U TR 41U TR	ANALYTICAL RESULTS HLGROMETHANE INYL CHLORIDE ROMOMETHANE ILOROFI UOROMETHANE RICHLOROFI UOROMETHANE , 1-DICHLOROETHENE(1,1-DICHLOROETHYLENF) CEIONE ARBON DISULFIDE ETHYLENE CHLORIDE RANS-1,2-DICHLOROETHENE ,1-DICHLOROETHANE INYL ACETATE IS-1,2-DICHLOROETHENE ,2-DICHLOROETHENE ,2-DICHLOROPROPANE ETHYL ETHYL KETONE ROMOCHLOROMETHANE HLOROFORM ,1,1-TRICHLOROETHANE ,1-DICHLOROPROPENE ARBON TETRACHLORIDE ,2-DICHLOROETHANE ENZENE RICHLOROPROPANE ENZENE RICHLOROPROPANE ENZENE RICHLOROPROPANE IBROMOMETHANE ROMODICHLOROMETHANE	41U CIS-1,3-DICHLGROPROPENE 410U METHYL ISOBUTYL KETONE 41U TOLUENE 41U TRANS-1,3-DICHLOROPROPENE 41U 1,2-TRICHLOROETHANE 41U 1,3-DICHLOROPROPANE 41U 1,3-DICHLOROPROPANE 41U METHYL BUTYL KETONE 41U DIBROMOCHLOROMETHANE 41U CHLOROBENZENE 41U 1,1,2-TETRACHLOROETHANE 41U ETHYL BENZENE 41U (M- AND/OR P-)XYLENE 41U STYRENE 41U STYRENE 41U BROMOFORM 41U BROMOFORM 41U BROMOBENZENE 41U 1,1,2,2-TETRACHLOROETHANE 41U 1,2,3-TRICHLOROPROPANE 41U 1,2,3-TRICHLOROPROPANE 41U 1,2,3-TRICHLOROPROPANE 41U 1,3-DICHLOROBENZENE 41U 1,3-DICHLOROBENZENE 41U 1,3-DICHLOROBENZENE 41U 1,2-DICHLOROBENZENE 41U 1,2-DICHLOROBENZENE 41U 1,2-DICHLOROBENZENE	HYLENE)

REMARKS

^{***}FOOTNOTES***

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

68/30/80	UNG ** * * * * * * * * * * * * * * * * *	*** * * * * * * * * * * * * * * * * * *	THYLENE)	
VT SYSTEM S, GA.	PROG ELEM: NSF COLLECTED BY: TYOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1035 STOP COLLECTION START: 05/04/89 1035 STOP COLLECTION START: 05/04/89 1035 STOP COLLECTION START: 05/04/89 1035	CIS-1,3-DICHLOROPROPENE MFTHYL ISUBULYL KETONE TOLUENE TRANS-1,3-DICHLOROPROPENE 1,2-TRICHLOROPROPENE TETRACHLOROETHENE(TETRACHLOROETHYLENE) 1,3-DICHLOROPROPANE METHYL BUTYL KETONE DIBROMOCHLOROMETHANE CHLOROBENZENE 1,1,2-TETRACHLOROETHANE ETHYL BENZENE (M-AND/OR P-)XYLENE STYRENE		
IS MANAGEMI ESD, ATHEI	PROG I CITY: COLLEC	* * * * * UG/KG	0.000 0.000	33.000 000 000 000 000 000 000 000 000
SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.	* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	LENF)	
PURGEABLE ORGANICS DATA REPORT	* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *	CHLOROMETHANE VINYL CHLORIDE BROMOMETHANE CHLOROETHANE IRICHLOROETHANE I.1-DICHLOROETHENE(1,1-DICHLOROETHYLENE) ACE TUNE CARBON DISULFIDE METHYLENE CHLORIDE TRANS-1,2-DICHLOROETHENE I.1-DICHLOROETHANE CANS-1,2-DICHLOROETHENE CANS-1,2-DICHLOROETHENE VINYL ACETATE CIS-1,2-DICHLOROETHENE VINYL ACETATE CIS-1,2-DICHLOROETHENE VINYL ETHYL ETHYL ETONE	BROMOCHLOROMETHANE CHLOROFORM 1, 1, 1—TRICHLOROETHANE 1, 1.—DICHLOROPROPENE CARBON TETRACHLORIDE 1, 2—DICHLOROETHANE TRICHLOROETHENE (TRICHLOROETHYLENE) 1, 2—DICHLOROPROPANE DIBROMOMETHANE BROMODICHLOROMETHANE
PURGEABLE	PROJESTAT	*** * * * * * * * * * * * * * * * * *		000000000000000000000000000000000000000

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

05/30/89

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG * * SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA STATION ID: SS-03 SURFACE SOIL #03 * * COLLECTION START: 05/04/89 1035 STOP: 00/00/00 * * * * * *

ANALYTICAL RESULTS UG/KG

200JN TRIME I HYLBENZENE PETROLEUM PRODUCT

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

PURGEABLE ORGANICS DATA REPORT	EPA-REGION IV ESD	DU, ATHENS, GA.	06/13/89
** PROJECT NO, 89-400 SAMPLE NO. 34902 SAMPLE ** SOURCE: WESTINGHOUSE ELECT. ** STATION ID: SS-04 SURFACE SOTE #04		PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1120 STOP: 00/00/00	**
UG/KG ANALYTICAL RESULTS	• • • • • • • • • •	UG/KG ANALYTICAL RESULTS	* * * * ***
930000U CHLOROMETHANE 930000U VINYL CHLORIDE 930000U BROMOMETHANE 930000U IRICHLOROFLUOROMETHANE 930000U 1,1-DICHLOROFLUOROMETHANE 9.3F6U ACETONE 9.3E6U CARBON DISULFIDE 930000U METHYLENE CHLORIDE 930000U TRANS-1,2-DICHLOROETHENE 9.3F6U VINYL ACETATE 930000U 1,1-DICHLOROETHANE 9.3F6U VINYL ACETATE 930000U CIS-1,2-DICHLOROETHENE 930000U 2,2-DICHLOROPROPANE 9.3E6U METHYL ETHYL KETONE 930000U BROMOCHLOROMETHANE 930000U 1,1-TRICHLOROETHANE 930000U 1,1,1-TRICHLOROETHANE 930000U 1,1,1-TRICHLOROETHANE 930000U 1,2-DICHLOROETHANE 930000U DIBROMOMETHANE	9.036 930 930 930 930 930 930 930 1.1.2 5.1.2 930 1.2.3 1.3.	CIS 1,3-DICHLOROPROPENE A 3EGH MFTHYL ISCHUTYL KETONE COOOUU TRANS-1,3 DICHLOROPROPENE COOOUU TRANS-1,3 DICHLOROPROPENE COOOUU 1,3-DICHLOROPROPENE COOOUU 1,3-DICHLOROPROPANE COOOUU 1,3-DICHLOROPROPANE COOOUU DIBROMOCHLOROMETHANE COOOUU CHLOROBENZENE COOOUU CHLOROTOLUENE COOOUU CHLOROBENZENE COOOUU CHLO	

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

06/13/89

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL PROG FLEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA SOURCE: WESTINGHOUSE ELECT.
STATION ID: SS-04 SURFACE SOIL #04 CULLECTION START: 05/04/89 1120 STOP: 00/00/00 * * ** . .

ANALYTICAL RESULTS UG/KG

TRIME HYLBENZENE (3 ISOMERS) 5t6JN

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

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EXTRACTABLE ORGANICS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL
SOURCE: WESTINGHOUSE ELECT.
STATION ID: SS-01 BACKGROUND SURFACE SOIL
PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS SI: GA COLLECTION START: 05/03/89 1530 STOP: 00/00/00
                                                                                                                                                        * *
UG/KG ANALYTICAL RESULTS
                                                                                 UG/KG ANALYTICAL RESULTS
   1700U BIS(2 CHLOROETHYL) FTHER
1700U BIS(2-CHLOROISOPROPYL) ETHER
1700U N-NITROSODI-N-PROPYLAMINE
                                                                                 1700U FLUORANTHENE
                                                                                  1700U PYRENE
                                                                                  1700U BENZYL BUTYI PHTHALATE
1700U 3,3'-DICHLOROBENZIDINE
                                                                                  1 7000
    1700U HEXACHLOROETHANE
                                                                                 1700U BENZO(A)ANTHRACENE
1700U CHRYSENE
    1700U NITROBENZENE
    1700U ISOPHORONE
    17000 B15(2-CHLOROETHOXY) METHANE
                                                                                  1700U
                                                                                         BIS(2-ETHYLHEXYL) PHTHALATE
    1700U 1,2,4-TRICHLOROBENZENE
1700U NAPHTHALENE
                                                                                         DI-N-OCTYLPHTHALATE
BENZO(B AND/OR K)FLUORANTHENE-
BENZO-A-PYRENE
                                                                                  1 700U
                                                                                  1 700U
    1700U 4-CHLOROANILINE
                                                                                  17000
    1700U HEXACHLOROBUTADIENE
                                                                                         INDENO (1,2,3-CD) PYRENE
DIBENZO(A,H)ANTHRACENE
                                                                                  1700U
    1700U 2-METHYLNAPHTHALENE
                                                                                  1700U
    1700U HEXACHLOROCYCLOPENTADIENE (HCCP)
1700U 2-CHLORONAPHTHALENE
                                                                                  1700U
                                                                                         BENZO(GHI)PERYLENE
                                                                                  1 700U
1 700U
                                                                                         PHENOL
                                                                                  1700U 2-CHLOROPHENOL
3300U BENZYL ALCOHOL
1700U 2-METHYLPHENOL
    1700U 2-NITROANILINE
    1700U DIMETHYL PHTHALATE
    1700U ACENAPHTHYLENE
    1700U 2,6-DINITROTOLUENE
1700U 3-NITROANILINE
                                                                                  1700U (3-AND/OR 4-)METHYLPHENOL
                                                                                  1 7000
                                                                                         2-NITROPHENOL
                                                                                  1700U 2.4-DIMETHYLPHENOL
3300U BENZOIC ACID
    17000 ACENAPHTHENE
    1700U DIBENZOFURAN
    1700U 2,4-DINITROTOLUENE
1700U DIETHYL PHTHALAIE
                                                                                  1700U 2,4-DICHLOROPHENOL
                                                                                  1700U 4-CHLORO-3-METHYLPHENOL
                                                                                 1700U 2,4,6-TRICHLOROPHENOL
1700U 2,4,5-TRICHLOROPHENOL
3300U 2,4-DINITROPHENOL
3300U 4-NITROPHENOL
1700U 2,3,4,6-TETRACHLOROPHENOL
    1700U FLUORENE
    1700U 4-CHLOROPHENYL PHENYL ETHER
1700U 4-NITROANILINE
    1700U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
    1700U 4-BROMOPHENYL PHENYL ETHER
1700U HEXACHLOROBENZENE (HCB)
                                                                                  3300U 2-MÉTHYL-4.6-DINITROPHENOL
3300U PENTACHLORÓPHENOL
    1700U PHENANTHRENE
            ANTHRACENE
                                                                                     19 PERCENT MOISTURE
    1 700U
    1700U DI-N-BUTYLPHTHALATE
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REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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PROJECT NO 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-01 BACKGROUND SURFACE SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA

COLLECTION START: 05/03/89 1530 STOP: 00/00/00

* * * *

ANALYTICAL RESULTS UG/KG

1000-IN HEXADECANOIC ACID

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

EXTRACTABLE ORGANICS DATA REPORT	EPA-REGION IV ESD, ATHENS, GA.	06/08/89
PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-02 SURFACE SOII. #02	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS SI: GA COLLECTION START: 05/04/89 1020 STOP: 00/00/00	* * * ***
UG/KG ANALYTICAL RESULTS	UG/KG ANALYTICAL RESULTS	* * * ***
16000U BIS(2-CHLOROCTHYL) ETHER 16000U N-NITROSODI-N-PROPYL MINF 16000U N-NITROSODI-N-PROPYL AMINF 16000U HEXACHLOROETHANE 16000U NITROBENZENE 16000U SOPHORONE 16000U BIS(2-CHLOROETHOXY) METHANE 16000U ISOPHORONE 16000U NAPHTHALENE 16000U A-CHLOROMILINE 16000U A-CHLOROMILINE 16000U HEXACHLOROBUTADIENE 16000U 2-METHYLNAPHTHALENE 16000U 2-MITROANILINE 16000U 2-NITROANILINE 16000U 2-NITROANILINE 16000U 2-NITROANILINE 16000U 3-NITROANILINE 16000U 3-NITROANILINE 16000U 2 (6-DINITROTOLUENE 16000U 3-NITROANILINE 16000U 1 (1000) DIBENZOFURAN 16000U 2 (1000) DIBENZOFURAN 16000U DIETHYL PHTHALATE 16000U 4-CHLOROPHENYL PHENYL ETHER 16000U 4-CHLOROPHENYL PHENYL ETHER 16000U 4-CHLOROPHENYL PHENYL ETHER 16000U 4-BITROSODIPHENYLAMINE/DIPHENYLAMINE 16000U 4-BROMOPHENYL PHENYL ETHER 16000U 4-BROMOPHENYL PHENYL ETHER 16000U HEXACHLOROBENZENE (HCB) 16000U DI-N-BUTYLPHTHALATE	78000 FLUORANTHENE 67000 PYRFNE 16000U BENZYL BUTYL PHTHALATE 16000U 3.3'-DICHLOROBENZIDINE 28000 BENZO(A)ANTHRACFNE 25000 CHRYSENE 16000U DI-N-OCTYLPHTHALATE 16000U DI-N-OCTYLPHTHALATE 51000 BENZO(B AND/OR K)FLUORANTHENE 24000 BENZO(B AND/OR K)FLUORANTHENE 10000J INDENO (1.2,3-CD) PYRENE 10000J DIBENZO(A, H)ANTHRACENE 9500J BENZO(A, H)ANTHRACENE 16000U PHENOL 16000U 2-CHLOROPHENOL 16000U 2-METHYLPHENOL 16000U 2-MITROPHENOL 16000U 2-ADIMENHOL 16000U 2-ADIMENHON 16000U 2-ADIMENHON 16000U 2-ADIMENHON 16000U 2-ADIMENHON 16000U 2-A-DIMENHON 16000U 2-A-TICHLOROPHENOL 16000U 2-A-TITROPHENOL 1600	· •

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

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06/08/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROJECT NO 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL PROG ELFM: NSF COLLECTED BY: R YOUNG .. SOURCE: WESTINGHOUSE ELECT * * CITY: ATHENS ST: GA * * .. STATION ID: SS-02 SURFACE SOIL #02 CULLECTION START: 05/04/89 1020 STOP: 00/00/00 ** * *

ANALYTICAL RESULTS UG/KG

(DIMETHYLBUTENYLIDENE)BISBENZENE ---2000JN 2000JN METHYLPHENANTHRENE 6000JN CYCLOPENTAPHENANTHRENE 3000JN PHENYL NAPHTHAL FNE BIS(BUTADIYNEDIYL)BENZENE 2000JN BENZONAPHTHOFURAN (3 ISOMERS) PHENANTHRENECARBONITRILE 9000JN 3000JN 20000JN METHYLFLUORANTHENE (4 ISOMERS) 8000JN BENZOFLUORENE BENZONAPHTHOTHIOPHENE 7000JN 40000JN BENZOFLUORANTHENE (NOT B OR K) (2 ISOMERS) 200000J 2 UNIDENTIFIED COMPOUNDS BENZOPHENANTHRENONE 2000JN

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

^{*}R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

1

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EXTRACTABLE ORGANICS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG STATION ID: SS-03 SURFACE SOIL #03 COLLECTION STATE: 05/04/89 1035 STOP (N)/00/00
UG/KG
               ANALYTICAL RESULTS
                                                                              UG/KG ANALYTICAL RESULTS
  20000U BIS(2 CHLOROETHYL) ETHER
                                                                             20000U FLUORANTHENE
  20000U BIS(2-CHLOROISOPROPYL) ETHER
                                                                             20000U PYRFNE
  20000U N-NITROSODI-N-PROPYLAMINE
                                                                              20000U
                                                                                      BENZYL BUTYL PHTHALATE
  20000U HEXACHLOROETHANE
                                                                             20000U
                                                                                      3,3'-DICHLOROBENZIDINE
  20000U NITROBENZENE
                                                                              20000U BENZO(A)ANTHRACENE
  20000U ISOPHORONE
20000U BIS(2-CHLOROETHOXY) METHANE
20000U 1,2,4-TRICHLOROBENZENE
                                                                              200000
                                                                                      CHRYSENE
                                                                                      BIS(2-ETHYLHEXYL) PHTHALATE
DI-N-OCTYLPHTHALATE
                                                                              20000U
                                                                              200000
  20000U NAPHTHALENE
                                                                              20000U BENZO(B AND/OR K)FLUORANTHENE
  20000U 4-CHLOROANILINE
                                                                              20000U BENZO-A-PYRENE
  20000U HEXACHLOROBUTADIENE
20000U 2-METHYLNAPHTHALENE
20000U HEXACHLOROCYCLOPENTADIENE (HCCP)
20000U 2-CHLORONAPHTHALENE
20000U 2-NITROANILINE
                                                                             20000U INDENO (1,2,3-CD) PYRENE
20000U DIBENZO(A,H)ANTHRACENE
                                                                              200000
                                                                                      BENZO(GHI)PERYLENE
                                                                              20000V
                                                                                      PHENOL
                                                                                      2-CHLOROPHENOL
BENZYL ALCOHOL
2-METHYLPHENOL
                                                                              200000
  20000U DIMETHYL PHTHALATE
                                                                              40000U
  20000U ACENAPHTHYLENE
20000U 2,6-DINITROTOLUENE
20000U 3-NITROANILINE
20000U ACENAPHTHENE
                                                                              200000
                                                                              200000
                                                                                      (3-AND/OR 4-)METHYLPHENOL
                                                                              20000U
                                                                                      2-NITROPHENOL
                                                                              20000U 2.4-DIME INVLPHENOL
40000U BENZOIC ACID
  20000U DIBENZOFURAN
  20000U 2,4-DINITROTOLUENE
20000U DIETHYL PHTHALATE
                                                                              20000U 2,4-DICHLOROPHENOL
                                                                              20000U 4-CHLORO-3-METHYLPHENOL
  20000U FLUORENE
20000U 4-CHLOROPHFNYL PHENYL ETHER
20000U 4-NITROANILINE
20000U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
                                                                              200000 2,4,6-TRICHLOROPHENOL
200000 2,4,5-TRICHLUROPHENOL
400000 2,4-DINITROPHENOL
400000 4-NITROPHENOL
                                                                              20000U 2,3,4,6-TETRACHLOROPHENOL
  20000U 4-BROMOPHENYL PHENYL ETHER
  20000U HEXACHLOROBENZENE (HCB)
                                                                              400000 2-METHYL-4,6-DINITROPHENOL
  20000U PHENANTHRENE
                                                                              40000U PENTACHLURUPHENOL
  20000U ANTHRACENE
                                                                                  33 PERCENT MOISTURE
  20000U DI-N-BUTYLPHTHALATE
```

REMARKS

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ** ST: GA * * STATION ID: SS-03 SURFACE SOIL #03 COLLECTION START: 05/04/89 1035 STOP: 00/00/00 . . **

ANALYTICAL RESULTS UG/KG

```
5000JN
           METHYLPROPYLBENZENE
           DIETHYLMETHYLBENZENE (2 ISOMERS)
  9000JN
           (DIMETHYLPROPYL)BENZENE
  6000JN
           DIMETHYL (MFTHYL FTHYL) BENZENE (2 ISOMERS)
 10000JN
  4000JN
           ETHYLTRIMETHYLBENZENE
  6000JN
           HEXANOIC ACID
  3000JN
           COPAENE
           HEPTADECANOL (2 ISOMERS)
TETRADECANOIC ACID
 40000JN
200000JN
           PENTADECANOIC ACID
 40000JN
           TETRADECANAL
 40000JN
   2E6JN
           HEXADECANOIC ACID
2E6J
100000JN
           11 UNIDENTIFIED COMPOUNDS
           HEPTADECANOIC ACID
700000JN
           PETROLEUM PRODUCT
 40000JN
           ETHYLDIMETHYLBENZENE (5 ISOMERS)
```

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. *R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

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EXTRACTABLE ORGANICS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. SI: GA COLLECTION START: 05/04/89 1120 STOP: 00/00/00
ANALYTICAL RESULTS
                                                                                                      UG/KG
                                                                                                                                  ANALYTICAL RESULTS
  88000U BIS(2 CHLOROETHYL) ETHER
                                                                                                     88000U FLUORANTHENE
  88000U BIS(2-CHLOROISOPROPYL) ETHER
88000U HEXACHLOROETHANE
88000U HEXACHLOROETHANE
NITROBENZENE
                                                                                                     88000U PYRENE
                                                                                                     80000U BENZYL BUTYL PHTHALATE
                                                                                                     88000U 3.3'-DICHLOROBENZIDINE
88000U BENZO(A)ANTHRACENE
  88000U ISOPHORONE
88000U BIS(2-CHLOROETHOXY) METHANE
88000U 1,2,4-TRICHLOROBENZENE
620000 NAPHTHALENE
                                                                                                     88000U CHRYSENE
                                                                                                    88000U BIS(2-ETHYLHEXYL) PHTHALATE
88000U DI-N-OCTYLPHTHALATE
88000U BENZO(B AND/OR K)FLUORANTHENE
88000U BENZO-A-PYRENE
88000U INDENO (1,2,3-CD) PYRENE
DIBENZO(A, H)ANTHRACENE
88000U BENZO(BLILL) BENZO(BLILL) BENZO(BLILL)
  62000 NAPHTHALENE
88000U 4-CHLOROANILINE
88000U HEXACHLOROBUTADIENE
240000 2-METHYLNAPHTHALENE
88000U HEXACHLOROCYCLOPENTADIENE (HCCP)
88000U 2-NITROANILINE
88000U DIMETHYL PHTHALATE
88000U ACENAPHTHYLENE
88000U 3-NITROANILINE
88000U ACENAPHTHENE
                                                                                                     88000U BENZO(GHI)PERYLENE
88000U PHENOL
                                                                                                     88000U 2-CHLOROPHENOL
                                                                                                    180000U BENZYL ALCOHOL
88000U 2-METHYLPHENOL
88000U (3-AND/OR 4-)METHYLPHENOL
88000U 2-NITROPHENOL
   88000U ACENAPHTHENE
                                                                                                     88000U 2,4-DIMETHYLPHENOL
  88000U DIBENZOFURAN
88000U 2,4-DINITROTOLUENE
88000U DIETHYL PHTHALATE
88000U FLUORENE
                                                                                                    180000U BENZOIC ACID
                                                                                                     88000U 2,4-DICHLOROPHENOL
                                                                                                     88000U 4-CHLORO-3-METHYLPHFNOL
88000U 2,4,6-TRICHLOROPHENOL
88000U 2,4,5-TRICHLOROPHENOL
   88000U 4-CHLOROPHENYL PHENYL ETHER
88000U 4-NITROANILINE
                                                                                                     180000 2.4-DINITROPHENOL
  88000U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
88000U 4-BROMOPHENYL PHENYL EIHER
88000U HEXACHLOROBENZENE (HCB)
                                                                                                     180000 4-NITROPHENOL
                                                                                                    88000U 2.3.4.6-TETRACHLOROPHENOL
18000OU 2-METHYL-4,6-DINITROPHENOL
   13000J PHENANTHRENE
                                                                                                    180000U PENTACHLUROPHENOL
   88000U ANTHRACENE
                                                                                                           40 PERCENT MOISTURE
```

REMARKS

FOOTNOTES

88000U DI-N-BUTYLPHTHALATE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT
PROJECT NO 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL
                                     PROG ELEM: NSF COLLECTED BY: R YOUNG
  SOURCE: WESTINGHOUSE ELECT
* *
                                     CITY: ATHENS
                                                  ST: GA
                                                                     ..
  STATION ID: SS-04 SURFACE SOIL #04
. .
                                     COLLECTION START: 05/04/89 1120 STOP: 00/00/00
                                                                     * *
..
. . . . .
```

ANALYTICAL RESULTS UG/KG

```
10000JN
           PROPYLCYCLOHEXANE
 30000JN
           PROPYLBENZENE
200000JN
            ETHYLMETHYLBENZENE (3 ISOMERS)
            TRIMETHYLRENZENE (3 150MERS)
9000001N
           PETROLEUM PRODUCT
 20000JN
            (METHYLPROPYL)BENZENE
200000JN
            PROPENYLCYCLOHEXANE
100000JN
           DIHYDROINDENE
900000JN
           METHYLPROPYLBENZENE
600000JN
            BUTYLBENZENE
   6E6JN
            ETHYLDIMETHYLBENZENE (7 ISOMERS)
   1E6JN
            (DIMETHYLPROPYL)BENZENE (6 ISOMERS)
            DIETHYLMETHYLBENZENE
100000JN
 20000JN
            METHYLDECAHYDRONAPHTHALENE
 30000JN
           PENTYLCYCLOHEXANE
700000JN
            METHYLDIHYDROINDENE
   1E6JN
            DIMETHYL (MFTHYL FTHYL )BENZENE (6 ISOMERS)
   1ESJN
            DIETHYLBENZENE
2E6J
200000JN
            10 UNIDENTIFIED COMPOUNDS
            TETRAHYDRONAPHTHALENE
           [(METHYLBENZYL)SULFONYL]PHENOL
DIMETHYLDIHYDROINDENE (2 ISOMERS)
DIMETHYL(METHYLPROPYL)BENZENE (2 ISOMERS)
100000JN
200000JN
 90000JN
100000JN
            FTHYL IRIMETHYLBENZENE
 60000JN
            1-METHYLNAPHTHALENE
            DIMETHYLNAPHTHALENE
 20000JN
100000JN
            HEXAMETHYLOCTAHYDROINDENE
100000JN
            BIS(DIMETHYLETHYL) METHYLPHENOL
 20000JN
            TRIMETHYLNAPATHALENE (2 ISOMERS)
 30000JN
           METHYL (METHYLETHYL) NAPHTHALENE
200000JN
            TETRADECANOIC ACID
 30000JN
            DIMETHYLPHENANTHRENE
   1E6JN
            HEXADECENOIC ACID
   4E6JN
            HEXADECANOIC ACID
   1E6JN
            OCTADECANOIC ACID
   2E6JN
            FTHYL (METHYLETHYL) BENZENE
 50000JN
            METHYLPROPYLCYCLOHEXANE (2 ISOMERS)
```

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS, GA.

06/14/89

PESTICIDES/PCB'S DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1530 STOP: 00/00/00 SOURCE: WESTINGHOUSE ELECT. . . STATION ID: SS-O1 BACKGROUND SURFACE SOIL .. ** ** UG/KG UG/KG ANALYTICAL RESULTS ANALYTICAL RESULTS 62UJ PCB-1232 (AROCLOR 1232) S. 1UJ ALDRIN 8 1UJ HEPTACHLOR 62UJ PCB-1248 (AROCLOR 1248) 8, 1UJ HEPTACHLOR EPOXIDE 62UJ PCB-1260 (AROCLOR 1260) 8 1UJ ALPHA-BHC PCB-1016 (AROCLOR 1016) 62UJ 8 1UJ BETA-BHC TOXAPHENE 310UJ 8.1UJ GAMMA BHC (LINDANE) CHLORDENE ---ALPHA-CHLORDENE /2
BETA CHLORDENE /2
GAMMA-CHLORDENE /2
1-HYDROXYCHLORDENE 8 1UJ DEL IA-BHC 8.1UJ ENDOSULFAN I (ALPHA) 8 1UJ DIELDRIN 8 1UJ 4.4'-DDT (P.P'-DDT) 8 1UJ 4.4'-DDE (P.P'-DDE) 8 1UJ 4.4'-DDD (P.P'-DDD) GAMMA-CHLORDANE TRANS-NONACHLOR 8.1UJ ENDRIN ALPHA-CHLORDANE /2 8.1UJ ENDOSULFAN II (BETA)
8.1UJ ENDOSULFAN SULFATE
42UJ CHLORDANE (TECH. MIXTURE) /1
62UJ PCB-1242 (AROCLOR 1242)
62UJ PCB-1254 (AROCLOR 1254) CIS-NONACHLOR OXYCHLORDANE (OCTACHLOREPOXIDE) /2 19UJ METHOXYCHLOR 8 1UJ ENDRÍN KETONE 19 PERCENT MOIST PERCENT MOISTURE

REMARKS

62UJ PCB-1221 (AROCLOR 1221)

REMARKS

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS C-CONFIRMED BY GC/MS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OF METABOLITES OF TECHNICAL CHLORDANE.

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PESTICIDES/PCB'S DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL
                                                                     PROG ELEM: NSF COLLECTED BY: R YOUNG
    SOURCE: WESTINGHOUSE ELECT.
STATION ID: SS-02 SURFACE SOIL #02
                                                                     CITY: ATHENS
                                                                     CITY: ATHENS ST: GA
COLLECTION START: 05/04/89 1020 STOP: 00/00/00
. .
                                                                                                                                * *
                                                                                                                                **
                                                                                                                                . .
UG/KG
                     ANALYTICAL RESULTS
                                                                     UG/KG
                                                                                       ANALYTICAL RESULTS
          ALDRIN
    22U
                                                                    2100
                                                                          PCB-1232 (AROCLOR 1232)
    22U
          HEPTACHLOR
                                                                    2100
                                                                           PCB-1248 (AROCLOR 1248)
          HEPTACHLOR FROX TOE
    22U
                                                                    210U
                                                                           PCB-1260 (AROCLOR 1260)
    22U
          ALPHA-BHC
                                                                           PCB-1016 (AROCLOR 1016)
                                                                    2100
    220
                                                                           TOXAPHENE
          BETA-BHC
                                                                   1400U
          GAMMA BIIC (LINDANE)
    22U
                                                                           CHLORDENE /2
                                                                          ALPHA-CHLORDENE /2
BETA CHLORDENE /2
GAMMA-CHLORDENE /2
1-HYDROXYCHLORDENE
GAMMA-CHLORDANE /2
          DEL 1A-BHC
    22U
    22U
          ENDOSULFAN I (ALPHA)
    50v
          DIELDRIN
    22U
22U
         4,4'-DDT (P.P'-DDT)
4,4'-DDE (P.P'-DDE)
4,4'-DDD (P.P'-DDD)
    22U
                                                                           TRANS-NONACHLOR
    22U
          ENDRIN
                                                                           ALPHA-CHLORDANE /2
          ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
    22U
                                                                           CIS-NONACHLOR
                                                                   ___
                                                                           OXYCHLORDANE (OCTACHLOREPOXIDE) /2
   3100
         CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
    97U
                                                                     79U
                                                                           METHOXYCHLOR
   210U
                                                                     330
                                                                           ENDRIN KETONE
   210U
                                                                           PERCENT MOISTURE
   2100
```

REMARKS

FOOTNOTES

#A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

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PESTICIDES/PCB'S DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG **

** SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS. SI: GA **
                                                                                 CITY: ATHENS ST: GA
COLLECTION START: 05/04/89 1035 STOP: 00/00/00
      STATION ID: SS-03 SURFACE SOIL #03
                                                                                                                                                    **
                                                                                                                                                      .
UG/KG ANALYTICAL RESULTS
                                                                                 UG/KG ANALYTICAL RESULTS
            ALDRIN
                                                                               1000U PCB-1232 (AROCLOR 1232)
1000U PCB-1248 (AROCLOR 1248)
     860
           HEPTACHLOR
                                                                                350JN PCB-1260 (AROCI OR 1260)
1000U PCB-1016 (AROCL OR 1016)
            HEPTACHLOR FPOXIDE
     28U
     280
            ALPHA-BHC
                                                                                10000
    1600
            BETA-BHC
                                                                                15000
                                                                                         TOXAPHENE
     44U
            GAMMA BHC (LINDANE)
                                                                                         CHLORDENE /2
                                                                                ___
                                                                                         ALPHA-CHLORDENE
     28U
            DEL I A-BHC
                                                                                         BETA CHLORDENE /2
GAMMA-CHLORDENE /2
     60V
            ENDOSULFAN I (ALPHA)
            DIELDRIN
     43J
                                                                                                              /2
            4,4'-DDT (P.P'-DDT)
4,4'-DDE (P.P'-DDE)
4,4'-DDD (P.P'-DDD)
                                                                                         1-HYDROXYCHLORDENE /2
GAMMA-CHLORDANE /2
TRANS-NONACHLOR /2
ALPHA-CHLORDANE /2
     28U
     66U
     74
     48U
            ENDRIN
           ENDRIN
ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDAME (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
     48U
                                                                                         CIS-NONACHLOR
                                                                                         OXYCHLORDANE (OCTACHLOREPOXIDE) /2
     48U
   250U
                                                                                  68U
                                                                                         METHOXYCHLOR
                                                                                  28U
                                                                                         FNORIN KETONE
   1100
                                                                                         PERCENT MOISTURE
    300U
                                                                                  33
   10000
```

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

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PESTICIDES/PCB'S DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT.
                                                                       PROG ELEM: NSF COLLECTED BY: R YOUNG
..
                                                                       CITY ATHENS
                                                                                                  ST: GA
                                                                       * *
     STATION ID: SS-04 SURFACE SOIL #04
* *
                                                                                                                                    .
. .
                                                                                                                                    * *
    ANALYTICAL RESULTS
                                                                       UG/KG
    UG/KG
                                                                                            ANALYTICAL RESULTS
                                                                             PCB-1232 (AROCLOR 1232)
PCB-1248 (AROCLOR 1248)
PCB-1260 (AROCLOR 1260)
PCB-1016 (AROCLOR 1016)
          ALDRIN
                                                                       440U
    330
          HEPTACHLOR
                                                                       440U
    41U
          HEPTACHLOR FPOXIDE
                                                                       440U
    41U
          ALPHA-BHC
                                                                       440U
    41U
          BETA-BHC
                                                                      1600U
                                                                              TOXAPHENE
                                                                              CHLORDENE /2
ALPHA-CHLORDENE /2
BETA CHLORDENE /2
GAMMA-CHLORDENE /2
    41U
          GAMMA BIIC (LINDANE)
                                                                      _---
    41U
          DEL (A-BHC
          ENDOSULFAN I (ALPHA)
    41 U
                                                                      ---
    66
          DIELDRIN
                                                                      ___
          4,4'-DOT (P,P'-DDT)
4,4'-DDE (P,P'-DDE)
4,4'-DDD (P,P'-DDD)
                                                                              1-HYDROXYCHLORDENE
    79U
    94U
79U
                                                                              GAMMA-CHLORDANE
                                                                              TRANS-NONACHLOR
                                                                      ---
    79U
79U
          ENDRIN
                                                                              ALPHA-CHLORDANE
CIS-NONACHLOR
                                                                      ___
          ENDKIN
ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
                                                                      ---
   1500
                                                                              OXYCHLORDANE (OCTACHLOREPOXIDE) /2
   220U
                                                                       250U
                                                                              METHOXYCHLOR
                                                                       1000
   440U
                                                                              ENDRIN KETONE
   440U
                                                                              PERCENT MOISTURE
   440U
```

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

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PURGEABLE ORGANICS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG STATION ID: SB-01 BACKGROUND SUBSURFACE SOIL COLLECTION START. 05/03/89 1550 STOP: 00/00/00
                                                                                                                                    . .
                                                                                                                                    * *
UG/KG
                       ANALYTICAL RESULTS
                                                                      UG/KG
                                                                                        ANALYTICAL RESULTS
          CHLOROMETHANE
                                                                             CIS 1,3-DICHLOROPROPENE
METHYL ISOBUTYL KETONE
    460
                                                                        16U
          VINYL CHLORIDE
BROMOMETHANE
    4611
                                                                       46(0)
                                                                              TOLUENE
    4GU
                                                                        4GU
                                                                              TRANS-1,3 DICHLOROPROPENE
1,1,2-IRICHLOROFTHANE
          CHLOROETHAND
    46U
                                                                        46U
    46U
          IRICHLOROFL UOROME THANE
                                                                        46U
    46U
          1.1-DICHLOROETHENE(1.1-DICHLOROETHYLENE)
                                                                              TETRACHLOROETHENE (TETRACHLOROFTHY) FNF)
                                                                        46U
   460U
          ACLIONE
                                                                              1,3-DICHLOROPROPANE
                                                                        46U
   460U
          CARBON DISULFIDE
                                                                       460U
                                                                              METHYL BUTYL KETONE
          METHYLENE CHLORIDE
TRANS-1,2-DICHLOROETHENE
1,1-DICHLOROETHANE
                                                                              DIBROMOCHLOROMETHANE
    46U
                                                                        46U
    46U
                                                                        46U
                                                                              CHLOROBENZENE
    46U
                                                                              1.1.1.2-TETRACHLOROETHANE
ETHYL BENZENE
                                                                        46U
   460U
          VINYL ACETATE
                                                                        46U
          CIS-1.2-DICHLOROETHENE
    46U
                                                                        46U
                                                                              (N- AND/OR P-)XYLENE
                                                                        46U
    46U
          2.2-DICHLOROPROPANE
                                                                              O-XYLENE
          METHYL ETHYL KETONE
BROMOCHLOROMETHANE
   46011
                                                                        46U
                                                                              STYRENE
    46U
                                                                        46U
                                                                              BROMOFORM
          CHLOROFORM
                                                                              BROMOBENZENE
    46U
                                                                        46U
                                                                              1.1.2.2-TETRACHLOROETHANE
1,2,3-TRICHLOROPROPANE
          1.1.1-TRICHLORUE [HANE
    46U
                                                                        46U
          1.1 DICHLOROPROPÈNE
    46U
                                                                        46U
          CARBON TETRACHLORIDE
    460
                                                                        46U
                                                                              O-CHLOROTOLUENE
    46U
          1.2-DICHLOROETHANE
                                                                        46U
                                                                              P - CHLOROTOLUENE
                                                                              1,3-DICHLOROBENZENE
1,4-DICHLOROBENZENE
1,2-DICHLOROBENZENE
    46U
          BÉNZENE
                                                                        4611
          TRICHLOROFTHENE (IRICHLOROETHYLENE)
    46U
                                                                        46U
          1,2-DICHLOROPROPANE
    46U
                                                                        46U
    46U
          DIBROMOMETHANE
                                                                      21.0
                                                                              PERCENT MOISTURE
    46U
          BROMODICHLOROMETHANF
```

REMARKS

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-FSTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

PURGEABLE ORGANICS DA	TA REPORT	2		(10) 00) 00
			ELEM: NSF COLLECTED BY: R YOUN: ATHENS ST: GA ECTION START: 05/04/89 1005 ST	
UG/KG	ANALYTICAL RESULTS		* * * * * * * * * * * * * * * * * * *	
410U CARBON DISU 41U METHYLENE C 41U TRANS-1,2-D 41U 1,1-DICHLOR 410U VINYL ACETA 41U CIS-1,2-DIC 41U 2,2-DICHLOR 410U METHYL ETHY 41U BROMOCHLORO 41U CHLOROFORM 41U 1,1,1-TRICH 41U 1,1-DICHLOR 41U CARBON IFTR 41U 1,2-DICHLOR 41U 1,2-DICHLOR 41U 1,2-DICHLOR 41U BENZENE	HLORÎDE II CHLOROETHENE OCTHANE ITE HLOROETHENE OPROPANE IL KETONE METHANE OPROPENE ACHLORÎDE OCTHANE OCTHANE OCTHANE OCTHANE	410 4100 410 410 410 410 410 4100 410 41	CIS-1,3-DICHLOROPROPENE MFTHYL ISOBUTYL KETONE TOLUENE TRANS-1,3-DICHLOROPROPENE 1,1,2-TRICHLOROETHANE TETRACHLOROETHENE(TETRACHLOROET 1,3-DICHLOROPROPANE METHYL BUTYL KETONE DIBROMOCHLOROMETHANE CHLOROBENZENE 1,1,1,2-TETRACHLOROETHANE ETHYL BENZENE (M- AND/OR P-)XYLENE O-XYLENE STYRENE BROMOFORM BROMOBENZENE 1,1,2-TETRACHLOROETHANE 1,2,3-TRICHLOROPROPANE O-CHLOROTOLUENE P-CHLOROTOLUENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 1,2-DICHLOROBENZENE PFRCENT MOISTURE	HYLENE)

REMARKS

^{***}FOOTNOTES***

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

PURGEABLE ORGANICS DATA REPORT	The state of the s	00/10/09
PROJECT NO. 89 400 SAMPLE NO. 34903 SAMPLE SOURCE: WESTINGHOUSE ELECT. STATION ID: SB-03 SUBSURFACE SOIL #03	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOU SI: GA COLLECTION START. 05/04/89 1225 S	**
UG/KG ANALYTICAL RESULTS	UG/KG ANALYTICAL RESULT	
UG/KG ANALYTICAL RESULTS 110U CHLOROMETHANE 110U VINYL CHLORIDE 110U BROMOMETHANF 110U CILOROETHANE 110U 11-DICILOROETHENE(1,1-DICHLOROETHYLENE) 110U ACÉTONE 110U ACÉTONE 110U CARBON DISULFIDE 110U TRANS-1,2-DICHLOROETHENE 110U TRANS-1,2-DICHLOROETHENE 110U 1,1-DICHLOROETHANE 110U VINYL ACETATE 110U CIS-1,2-DICHLOROETHENE 110U 2,2-DICHLOROPOPANE 110U MÉTHYL ETHYL KÉTONE 110U MÉTHYL ETHYL KÉTONE 110U BROMOCHLOROMETHANE 110U 1,1-TRICHLOROETHANE 110U 1,1-TRICHLOROETHANE 110U 1,2-DICHLOROPENE 110U 1,2-DICHLOROETHANE 110U 1,2-DICHLOROETHANE 110U 1,2-DICHLOROETHANE 110U 1,2-DICHLOROETHANE 110U 1,2-DICHLOROETHANE 110U 1,2-DICHLOROETHANE 110U BENZENE 110U TRICHLOROFTHENE(IRICHLOROETHYLENE) 110U 0IBROMOMETHANE	110U CIS 1,3-DICHLOROPROPENE 110U MFTHYL ISUBUTYL KETONE 110U TOLUENE 110U TRANS-1,3 DICHLOROPROPENE 110U 1,2-IRICHLOROFTHANE 110U 1,3-DICHLOROPROPANE 110U 1,3-DICHLOROPROPANE 110U DIBROMOCHLOROMETHANE 110U CHLOROBENZENE 110U CHLOROBENZENE 110U ETHYL BENZENE 110U ETHYL BENZENE 110U G-XYLENE 110U STYRENE 110U BROMOFORM 110U BROMOFORM 110U BROMOFORM 110U BROMOFORM 110U BROMOFORM 110U 1,2,2-TETRACHLOROETHANE 110U 1,2,2-TETRACHLOROETHANE 110U 1,2,3-TRICHLOROPROPANE 110U 1,2,3-TRICHLOROPROPANE 110U 1,2-DICHLOROBENZENE 110U 1,3-DICHLOROBENZENE 110U 1,2-DICHLOROBENZENE 110U 1,2-DICHLOROBENZENE 110U 1,2-DICHLOROBENZENE	THYLENE)

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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EXTRACTABLE ORGANICS DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG ***
                                                                            PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS SI: GA COLLECTION START: 05/03/89 1550 STOP: (N)/00/00
     SOURCE: WESTINGHOUSE ELECT.
                                                                                                                                               . .
     STATION ID: SB-01 BACKGROUND SUBSURFACE SOIL
                                                                                                                                               * *
..
UG/KG
    UG/KG
                       ANALYTICAL RESULTS
                                                                                                ANALYTICAL RESULTS
   1700U BIS(2 CHLOROETHYL) ETHER
                                                                             1700U FLUORANTHENE
   1700U BIS(2-CHLOROISOPROPYL) ETHER
                                                                             1700U PYRENE
   1700U N-NITROSODI-N-PROPYLAMINE
                                                                                    BENZYL BUTYL PHTHALATE
                                                                             1 700บ
   1700U HEXACHLOROETHANE
1700U NITROBENZENE
                                                                                    3,3'-DICHLOROBENZIDINE
BENZO(A)ANTHRACENE
                                                                             17000
                                                                             1 700U
   1700U ISOPHORONE
                                                                                    CHRYSENE
                                                                             1 700U
                                                                                                                                          n
   1700U BIS(2-CHLOROETHOXY) METHANE
1700U 1,2,4-TRICHLOROBENZENE
                                                                                    BIS(2-ETHYLHEXYL) PHTHALATE
DI-N-OCTYLPHTHALATE
                                                                             1 700U
                                                                             1 700U
   1700U NAPHTHALENE
                                                                                    BENZO(B AND/OR K)FLUORANTHENE
                                                                             1 700U
   1700U 4-CHLOROANILINE
1700U HEXACHLOROBUTADIENE
1700U 2-METHYLNAPHTHALENE
                                                                                    BENZO-A-PYRENE
INDENO (1,2,3-CD) PYRENE
DIBENZO(A,H)ANTHRACENE
                                                                             1 700U
                                                                             1 700U
1 700U
   1700U HEXACHLOROCYCLOPENTADIENF (HCCP)
1700U 2-CHLORONAPHTHALENE
                                                                             17000
                                                                                     BENZO(GHI)PERYLENE
                                                                             1 700U
                                                                                     PHENOL
   1700U 2-NITROANILINE
                                                                             17000
                                                                                     2-CHLOROPHENOL
                                                                                    BENZYL ALCOHOL
2-METHYLPHENOL
   1700U DIMETHYL PHTHALATE
                                                                             33000
   1700U ACENAPHTHYLENE
1700U 2,6-DINITROTOLUENE
                                                                             1 700U
1 700U
                                                                                    (3-AND/OR 4-)METHYLPHENOL
2-NITROPHENOL
   1700U 3-NITROANILINE
                                                                             1 700U
   1700U ACENAPHTHENE
                                                                             1700U
                                                                                     2.4-DIMETHYLPHENOL
   1700U DIBENZOFURAN
                                                                             3300U BÉNZOIC ACID
   1700U 2.4-DINITROTOLUENE
1700U DIETHYL PHTHALATE
                                                                                    2,4-DICHLOROPHENOL
                                                                             1700U
                                                                                    4-CHLORO-3-METHYLPHENOL
2,4,6-TRICHLOROPHENOL
                                                                             1 700U
   1700U FLUORENE
                                                                             1 7000
   1700U 4-CHLOROPHENYL PHENYL ETHER
                                                                                    2,4,5-TRICHLOROPHENOL
                                                                             1 700U
                                                                             3300U 2.4-DINITROPHENOL
   1700U 4-NITROANILINE
   1700U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
                                                                             33000
                                                                                     4-NITROPHENOL
                                                                                    2.3.4.6-TETRACHLOROPHENOL
2-METHYL-4,6-DINITROPHENOL
   1700U 4-BROMOPHENYL PHENYL ETHER
                                                                             1 700U
   1700U HEXACHLOROBENZENE (HCB)
                                                                             33000
   1700U PHENANTHRENE
                                                                             3300U PENTACHLORUPHENOL
   1700U ANTHRACENE
                                                                                     PERCENT MOISTURE
   1700U DI-N-BUTYLPHTHALATE
```

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS, GA.

06/08/89

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT CITY: ATHENS ST: GA

STATION ID: SB-01 BACKGROUND SUBSURFACE SOIL COLLECTION START: 05/03/89 1550 STOP: 00/00/00

* * **

ANALYTICAL RESULTS UG/KG

5000JN HEXADECANOIC ACID 400JN OCTADECANOIC ACID

**

* *

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

EXTRACTABLE ORGANICS DATA REPORT	ETA REGION IV ESD, WHIENS, GA.	1,0706769
PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE SOURCE: WESTINGHOUSE ELECT. STATION ID: SB-02 SUBSURFACE SOIL #2	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1005 STOP: 00/00/0	
UG/KG ANALYTICAL RESULTS	UG/KG ANALYTICAL RESULTS	* * * * * * ***
1700U BIS(2 CHLOROETHYL) FTHER 1700U BIS(2-CHLOROISOPROPYL) ETHER 1700U N-NITROSODI-N-PROPYLAMINF 1700U HEXACHLOROETHANE 1700U NITROBENZENE 1700U SOPHORONE 1700U SISCHOROETHOXY) METHANE 1700U 1,2,4-TRICHLOROBENZENE 1700U 1,2,4-TRICHLOROBENZENE 1700U NAPHTHALENE 1700U HEXACHLOROBUTADIENE 1700U HEXACHLOROBUTADIENE 1700U 2-METHYLNAPHTHALENE 1700U 2-METHYLNAPHTHALENE 1700U 2-NITROANILINE 1700U 2-NITROANILINE 1700U 2-NITROANILINE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U 2,4-DINITROTOLUENE 1700U DIBENZOFURAN 1700U 2,4-DINITROTOLUENE 1700U DIETHYL PHTHALATE 1700U FLUORENE 1700U 4-CHLOROPHENYL PHENYL ETHER 1700U 4-CHLOROPHENYL PHENYL ETHER 1700U 4-BROMOPHENYL PHENYL ETHER 1700U 4-BROMOPHENYL PHENYL ETHER 1700U ANTHRACENE 1700U ANTHRACENE	1700U FLUORANTHENE 1700U PYRFNE 1700U BENZYL BUTYL PHTHALATE 1700U BENZO(A)ANTHRACFNF 1700U CHRYSENE 1700U BIS(2-ETHYLHEXYL) PHTHALATE 1700U DI-N-OCTYLPHTHALATE 1700U BENZO(B AND/OR K)FLUORANTHENE 1700U BENZO(B AND/OR K)FLUORANTHENE 1700U BENZO(A, H)ANTHRACENE 1700U DIBENZO(A, H)ANTHRACENE 1700U DIBENZO(A, H)ANTHRACENE 1700U BENZO(GHI)PERYLENE 1700U PHENOL 1700U 2-CHLOROPHENOL 3400U BENZYL ALCOHOL 1700U 2-METHYLPHENOL 1700U 2-NITROPHENOL 1700U 2,4-DIMETHYLPHENOL 1700U 2,4-DIMETHYLPHENOL 1700U 2,4-DIMETHYLPHENOL 1700U 2,4-FIRICHLOROPHENOL 1700U 2,3-4-FIRICHLOROPHENOL 24-DINITROPHENOL 25-PERCENT MOISTURE	. f r

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

EXTRACTABLE ORGANICS DATA REPORT	
** PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA ** STATION ID: SB-03 SUBSURFACE SOII #03 COLLECTION START: 05/04/89 1225 STOP: 00/00/00	* * * ***
UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS	* * * ***
STATION ID: 58-03 SUBSURFACE SOII #03 COLLECTION START: 05/04/89 1225 STOP: 01/00/00	· •

REMARKS

^{**}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG .. * * SOURCE: WESTINGHOUSE ELECT.
STATION ID: SB-03 SUBSURFACE SOIL #03 CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1225 STOP: 00/00/00 ** * * * * * *

ANALYTICAL RESULTS UG/KG

200JN TETRADECANOIC ACID HEXADECANOIC ACID 5000JN 700JN

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

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PESTICIDES/PCB'S DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL
                                                                   PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA
     SOURCE: WESTINGHOUSE ELECT.
                                                                   CITY: ATHENS ST: GA
COLLECTION START: 05/03/89 1550 STOP: 00/00/00
                                                                                                                            . .
     STATION ID: SB-O1 BACKGROUND SUBSURFACE SOIL
                                                                                                                            **
                                                                                                                            * *
UG/KC
                       ANALYTICAL RESULTS
                                                                   UG/KG
                                                                                     ANALYTICAL RESULTS
  8.1U ALDRIN
                                                                   62U
                                                                         PCB-1232 (AROCLOR 1232)
   270
         HEPTACHLOR
                                                                         PCB-1248 (AROCLOR 1248)
PCB-1260 (AROCLOR 1260)
                                                                   62U
         HEPTACHLOR EPOXIDE
   8 1U
                                                                   62U
         ALPHA-BHC
                                                                   62V
   8,10
                                                                         PCB-1016 (AROCLOR 1016)
   8 10
                                                                  3100
         BETA-BHC
                                                                         TOXAPHENE
   8,10
         GAMMA BIIC (LINDANE)
                                                                         CHLORDENE
                                                                  ---
                                                                         ALPHA-CHLORDENE /2
   8,10
         DEL I A-BHC
   8.10
         ENDOSULFAN I (ALPHA)
                                                                         BETA CHLORDENE /2
GAMMA-CHLORDENE /2
   8.10
         DIELDRIN
                                                                 ___
         4,4'-DDT (P,P'-DDT)
4,4'-DDE (P,P'-DDE)
4,4'-DDD (P,P'-DDD)
                                                                         1-HYDROXYCHLORDENE
   8.10
                                                                         GAMMA-CHLORDANE /2
TRANS-NONACHLOR /2
   8.10
   8,10
                                                                 ---
                                                                         ALPHA-CHLORDANE
CIS-NONACHLOR
          ENDRIN
   8.10
         ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
   8.1U
   8.10
                                                                         OXYCHLORDANE (OCTACHLOREPOXIDE) /2
                                                                 ___
         CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
                                                                         METHOXYCHLOR
    42U
                                                                  198
    62U
                                                                  8.10
                                                                         ENDRIN KETONE
    62U
                                                                   21
                                                                         PERCENT MOISTURE
    62U
```

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

```
PESTICIDES/PCB'S DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE TYPE: SOIL

SOURCE: WESTINGHOUSE ELECT.

STATION ID: SB-02 SUBSURFACE SOIL #2

PROG ELEM: NSF COLLECTED BY: R YOUNG
CITY: ATHENS ST: GA
COLLECTION START: 05/04/89 1005 STOP: 00/00/00
                                                                                                                                           . .
                                                                                                                                           * *
UG/KG ANALYTICAL RESULTS
                                                                            UG/KG
                                                                                                 ANALYTICAL RESULTS
                                                                                  PCB-1232 (AROCLOR 1232)
PCB-1248 (AROCLOR 1248)
   3.10
         ALDRIN
          HEPTACHLOR
   8 1U
                                                                            62U
   8.10
          HEPTACHLOR EPOXIDE
                                                                            62U
                                                                                  PCB-1260 (AROCLOR 1260)
                                                                                  PCB-1016 (AROCLOR 1016)
   8.10
          ALPHA-BHC
                                                                            620
   8.10
          BETA-BHC
                                                                          3100
                                                                                  TOXAPHENE
           GAMMA BHC (LINDANE)
                                                                                  CHLORDENE
   8.10
                                                                          ---
   8.10
          DEL IA-BHC
                                                                                   ALPHA-CHLORDENE
                                                                          ---
                                                                                  BETA CHLORDENE /2
GAMMA-CHLORDENE /2
   8.10
           ENDOSULFAN I (ALPHA)
   8.10
          DIELDRIN
                                                                                                     /2
                                                                                  1-HYDROXYCHLORDENE
GAMMA-CHLORDANE /2
TRANS-NONACHLOR /2
          4,4'-DDT (P,P'-DDT)
4,4'-DDE (P,P'-DDE)
4,4'-DDD (P,P'-DDD)
   8. 1J
   8.10
   8,10
                                                                                  ALPHA-CHLORDANE
CIS-NONACHLOR
   8.10
           ENDRIN
                                                                                                      /2
          ENDRIN
ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
   8.10
                                                                                  OXYCHLORDANE (OCTACHLOREPOXIDE) /2
   8.10
                                                                          190
    42U
                                                                                  METHOXYCHLOR
                                                                           8.1Ŭ
22
    62V
                                                                                  ENDRIN KETONE
PERCENT MOISTURE
    62U
    62U
```

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

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PESTICIDES/PCB'S DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL
SOURCE: WESTINGHOUSE ELECT.
STATION ID: SB-03 SUBSURFACE SOIL #03

PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1225 STOP: 00/00/00
                                                                                                                            2 2
                                                                                                                            * *
UG/KG ANALYTICAL RESULTS
                                                                                     ANALYTICAL RESULTS
                                                                   UG/KG
  8.10
        ALDRIN
                                                                         PCB-1232 (AROCLOR 1232)
                                                                         PCB-1248 (AROCLOR 1248)
   8 10
         HEPTACHLOR
                                                                   62U
         HEPTACHLOR EPOXIDE
   8.10
                                                                   62U
                                                                         PCB-1260 (AROCLOR 1260)
  8,10
         ALPHA-BHC
                                                                   62U
                                                                         PCB-1016 (AROCLOR 1016)
   8.10
          BETA-BHC
                                                                  3100
                                                                         TOXAPHENE
                                                                         CHLORDENE /2
ALPHA-CHLORDENE
   8,10
          GAMMA BHC (LINDANE)
                                                                  ----
          DEL IA-BHC
   8.10
                                                                         BETA CHLORDENE /2
GAMMA-CHLORDENE /2
   8,10
          ENDOSULFAN I (ALPHA)
   8.1U
          DIELDRIN
                                                                                          /2
         4,4'-DDT (P,P'-DDT)
4,4'-DDE (P,P'-DDE)
4,4'-DDD (P,P'-DDD)
   8 10
                                                                         1-HYDROXYCHLORDENE
   8,10
                                                                         GAMMA-CHLORDANE /2
                                                                         TRANS-NONACHLOR
   8,10
   8.10
          ENDRIN
                                                                         ALPHA-CHLORDANE
   8.10
          ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
                                                                         CIS-NONACHLOR
                                                                         OXYCHLORDANE (OCTACHLOREPOXIDE) /2
   B. 1U
                                                                  ___
         CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
    42U
                                                                  190
                                                                         METHOXYCHLOR
                                                                  8.10
                                                                         ENDRIN KETONE
    620
                                                                         PERCENT MOISTURE
    62U
          PCB-1221 (AROCLOR 1221)
    62U
```

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

PURGFABLE ORGANICS DATA REPORT	CONTROLOGY AND CONTROLOGY CONTROLOGY	(70/13/69
** PROJECT NO. 89 400 SAMPLE NO. 34906 SAMPLE ** SOURCE: WESTINGHOUSE ELECT. ** STATION ID: SD-01 BACKGROUND SEDIMENT SOIL **	CITY: ATHENS SI: GA COLLECTION START: 05/03/89 1630 STOP	· 00/00/00 **
UG/KG ANALYTICAL RESULTS	UG/KG ANALYTICAL RESULTS	* * * * * * * * * * * * * * * * * * * *
44U CHLOROMETHANE 44U VINYL CHLORIDE 44U DROMOMETHANE 44U CHLOROFLUOROMETHANE 44U INICHLOROFLUOROMETHANE 44U 1,1-DICHLOROETHENE(1,1-DICHLORUETHYLENE) 44OU ACE FONE 44OU CARBON DISULFIDE 44U METHYLENE CHLORIDE 44U TRANS-1,2-DICHLOROETHENE 44U 1,1-DICHLOROETHANE 44OU VINYL ACETATE 44U CIS-1,2-DICHLOROETHENE 44OU WETHYL ETHYL KETONE 44OU METHYL ETHYL KETONE 44OU METHYL ETHYL KETONE 44U DROMOCHLOROMETHANE 44U CARBON TETRACHLORIDE 44U 1,1,1-TRICHLOROPROPENE 44U CARBON TETRACHLORIDE 44U TRICHLOROFTHENE 44U TRICHLOROFTHENE 44U TRICHLOROFTHENE 44U TRICHLOROFTHENE 44U TRICHLOROFTHENE 44U TRICHLOROFTHENE 44U TRICHLOROPROPANE 44U TRICHLOROFTHENE	440 ATT AND	fNr)

REMARKS

^{*}FOUNDIES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

PURGEABLE	E ORGANICS DATA REPORT		,,
* *	JECT NO, 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL RCE: WESTINGHOUSE ELECT. TION ID: SD-02 SEDIMENT SOIL #02		**
UG/K		UG/KG ANALYTICAL RESULTS	1 1 1 1 1 1 1 1 1
73U	CHLOROMETHANE VINYL CHLORIDE BROMOMETHANE CHLOROETHANE 1	73U CIS 1,3-DICHLOROPROPENE 73U MFTHYL ISUBULYL KETONE 73U TOLUENE 73U TRANS-1,3 DICHLOROPROPENE 73U 1,1-2-RIGHLOROFTHANE 73U 1,3-DICHLOROPROPANE 73U METHYL BUTYL KETONE 73U DIBROMOCHLOROMETHANE 73U CHLOROBENZENE 73U 1,1,1,2-TETRACHLOROETHANE 73U ETHYL BENZENE 73U (M- AND/OR P-)XYLENE 73U GYLENE 73U STYRENE 73U BROMOFORM 73U BROMOFORM 73U BROMOFORM 73U BROMOFORM 73U BROMOFORM 73U J.2,2-TETRACHLOROETHANE 73U 1,2,3-TRICHLOROPROPANE 73U 0-CHLOROHOLOROETHANE 73U 1,2,3-TRICHLOROPROPANE 73U 1,2-TETRACHLOROETHANE 73U 1,2-TETRACHLOROETHANE 73U 1,2-TETRACHLOROETHANE 73U 1,2-TETRACHLOROETHANE 73U 1,2-TETRACHLOROETHANE 73U 1,2-TETRACHLOROPROPANE 73U 1,2-TETRACHLOROPROPANE 73U 1,2-TETRACHLOROBENZENE 73U 1,3-DICHLOROBENZENE 73U 1,3-DICHLOROBENZENE 73U 1,2-DICHLOROBENZENE	

REMARKS

^{*}A-ACTUAL VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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EXTRACTABLE ORGANICS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL
SOURCE: WESTINGHOUSE ELECT.
STATION ID: SD-01 BACKGROUND SEDIMENT SOIL

PROG ELEM: NSF COLLECTED BY: R YOUNG
CITY: ATHENS
SI: GA
COLLECTION START. 05/03/89 1630 STOP: 00/00/00
UG/KG
                       ANALYTICAL RESULTS
                                                                          UG/KG ANALYTICAL RESULTS
  2000UJ BIS(2 CHLOROETHYL) ETHER
                                                                         2000UJ FLUORANTHENE
  2000UJ BIS(2-CHLOROISOPROPYL) ETHER
                                                                         2000UJ
                                                                                 PYRENE
  2000UJ N-NITROSODI-N-PROPYLAMINE
2000UJ HEXACHLOROETHANE
                                                                         200001
                                                                                 BENZYL BUTYL PHTHALATE
                                                                         2000VJ
                                                                                 3.3'-DICHLOROBENZIDINE
  2000UJ NITROBENZENE
                                                                         200000
                                                                                 BENZO(A)ANTHRACENE
  2000UJ ISOPHORONE
                                                                         200001
                                                                                 CHRYSENE
                                                                                                                                    . 71
  2000UJ BIS(2-CHLOROETHOXY) METHANE
                                                                                 BIS(2-ETHYLHEXYL) PHTHALATE
DI-N-OCTYLPHTHALATE
                                                                         200001
  2000UJ 1,2,4-TRICHLOROBENZENĒ
                                                                         2000UJ
  2000UJ NAPHTHALENE
2000UJ 4-CHLOROANILINE
                                                                         2000UJ
                                                                                 BENZO(B AND/OR K)FLUORANTHENE
                                                                         2000ŬĴ
                                                                                 BENZO-A-PYRENE
                                                                                 INDENO (1,2,3-CD) PYRENE
DIBENZO(A,H)ANTHRACENE
BENZO(GHI)PERYLENE
  2000UJ HEXACHLOROBUTADIENE
2000UJ 2-METHYLNAPHTHALENE
                                                                         2000UJ
                                                                         2000UJ
  2000UJ HEXACHLOROCYCLOPENTADIENE (HCCP)
2000UJ 2-CHLORONAPHTHALENE
                                                                         2000UJ
                                                                         2000UJ
                                                                                 PHENOL
  2000UJ 2-NITROANILINE
                                                                         2000UJ
                                                                                  2-CHLOROPHENOL
  2000UJ DIMETHYL PHTHALATE
                                                                         4000UJ
                                                                                  BENZYL ALCOHOL
  2000UJ ACENAPHTHYLENE
2000UJ 2,6-DINITROTOLUENE
                                                                         5000n1
                                                                                  2-METHYLPHENOL
                                                                                  (3-AND/OR 4-)METHYLPHENOL
2-NITROPHENOL
                                                                         2000UJ
  2000UJ 3-NITROANILINE
                                                                         2000UJ
  2000UJ ACENAPHTHEME
                                                                          2000UJ
                                                                                  2, 4-DIME IHYLPHENUL
  2000UJ DIBENZOFURAN
                                                                         4000UJ BENZOIC ACID
  2000UJ 2.4-DINITROTOLUENE
2000UJ DIETHYL PHTHALATE
2000UJ FLUORENE
                                                                         2000UJ 2.4-DICHLOROPHENOL
                                                                         2000UJ 4-CHLORO-3-METHYLPHENOL
2000UJ 2,4,6-TRICHLOROPHENOL
2000UJ 2,4,5-TRICHLOROPHENOL
  2000UJ 4-CHLOROPHENYL PHENYL ETHER
  2000UJ 4-NITROANILINE
                                                                          4000UJ 2,4-DINITROPHENOL
  2000UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
                                                                         4000UJ 4-NITROPHENOL
  2000UJ 4-BROMOPHENYL PHENYL ETHER
                                                                         2000UJ
                                                                                 2,3,4,6-TETRACHLOROPHENOL
                                                                         4000UJ 2-METHYL-4,6-DINITROPHENOL
4000UJ PENTACHLURUPHENOL
33 PERCENT MOISTURE
  2000UJ HEXACHLOROBENZENE (HCB)
  2000UJ PHENANTHRENE
  2000UJ ANTHRACENE
  2000UJ DI-N-BUTYLPHTHALATE
```

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG . SOURCE: WESTINGHOUSE ELECT CITY: ATHENS ST: GA ** STATION ID: SD-01 BACKGROUND SEDIMENT SOIL CULLECTION START: 05/03/89 1630 STOP: 00/00/00 * * * * ** ..

ANALYTICAL RESULTS UG/KG

2000/IN HEXAUECANGIC ACID

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

* *

* *

* *

**

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

* *

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PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG

SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA

STATION ID: SD-02 SEDIMENT SOIL #02 COLLECTION START: 05/03/89 1815 STOP: 00/00/00

ANALYTICAL RESULTS UG/KG

HEXADECANDIC ACID 6000JN 700JN PETROLEUM PRODUCT

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

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PESTICIDES/PCB'S DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT.
                                                                      CITY: ATHENS ST: GA
COLLECTION START: 05/03/89 1630 STOP: 00/00/00
                                                                                                                                 . .
     STATION ID: SD-01 BACKGROUND SEDIMENT SOIL
* *
                                                                                                                                 **
                                                                                                                                 **
UG/KG
                       ANALYTICAL RESULTS
                                                                      UG/KG
                                                                                          ANALYTICAL RESULTS
   9.50
          ALDRIN
                                                                            PCB-1232 (AROCLOR 1232)
PCB-1248 (AROCLOR 1248)
                                                                      73U
   9 50
          HEPTACHLOR
                                                                      73U
   9.50
          HEPTACHLOR EPOXIDE
                                                                      73U
                                                                            PCB-1260 (AROCLOR 1260)
   9.50
          ALPHA-BHC
                                                                      730
                                                                            PCB-1016 (AROCLOR 1016)
   9.50
          BETA-BHC
                                                                     360U
                                                                            TOXAPHENE
          GAMMA BHC (LINDANE)
   9.50
                                                                            CHLORDENE
                                                                            ALPHA-CHLORDENE
   9 50
          DEL I A-BHC
                                                                    ___
                                                                            BETA CHLORDENE /2
GAMMA-CHLORDENE /2
   9.50
          ENDOSULFAN I (ALPHA)
   9.50
          DIELDRIN
                                                                            GAMMA-CHLORDENE
1-HYDROXYCHLORDENE
CAMMA-CHLORDANE /2
          4,4'-DDT (P,P'-DDT)
4,4'-DDE (P,P'-DDE)
4,4'-DDD (P,P'-DDD)
   9.50
   9.50
                                                                             TRANS-NONACHLOR
   9.50
          ENDRIN
   9.50
                                                                             ALPHA-CHLORDANE /2
          ENDRIN
ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
   9.50
                                                                             CIS-NONACHLOR
   9.50
                                                                            OXYCHLORDANÉ (OCTACHLOREPOXIDE) /2
                                                                      22U
    49U
                                                                            METHOXYCHLOR
                                                                     9. 5U
                                                                            ENDRIN KETONE
    730
                                                                      33
                                                                            PERCENT MOISTURE
    73U
```

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

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PESTICIDES/PCB'S DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA
                                                                  CITY: ATHENS ST: GA
COLLECTION START: 05/03/89 1815 STOP: 00/00/00
    STATION ID: SD-02 SEDIMENT SOIL #02
                                                                                                                         * *
. .
                                                                                                                          * *
UG/KG ANALYTICAL RESULTS
                                                                                   ANALYTICAL RESULTS
                                                                  UG/KG
       ALDRIN
   120
                                                                  900
                                                                      PCB-1232 (AROCLOR 1232)
         HEPTACHLOR
   120
                                                                  900
                                                                        PCB-1248 (AROCLOR 1248)
         HEPTACHLOR FPOXIDE
   120
                                                                  90U
                                                                        PCB-1260 (AROCLOR 1260)
   120
         ALPIIA-BHC
                                                                        PCB-1016 (AROCLOR 1016)
                                                                  900
   120
         BETA-BHC
                                                                 450U
                                                                        TOXAPHENE
         GAMMA BHC (LINDANE)
   120
                                                                        CHLORDENE
                                                                ---
   120
         DEL (A-BHC
                                                                        ALPHA-CHLORDENE
                                                                        BETA CHLORDENE /2
GAMMA-CHLORDENE /2
         ENDOSULFAN I (ALPHA)
   12U
   120
         DIELDRIN
                                                                                        /2
         4.4'-DDT (P.P'-DDT)
4.4'-DDE (P.P'-DDE)
4.4'-DDD (P.P'-DDD)
   120
                                                                        1-HYDROXYCHLORDENE
                                                                        GAMMA-CHLORDANE /2
TRANS-NONACHLOR /2
    120
                                                                        TRANS-NONACHLOR
ALPHA-CHLORDANE
   120
         ENDRIN
   120
                                                                                         12
         ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
   120
                                                                        CIS-NONACHLOR
                                                                        OXYCHLORDANE (OCTACHLOREPOXIDE) /2
    120
   61U
                                                                        METHOXYCHLOR
                                                                  120
                                                                        ENDRIN KETONE
    90U
                                                                        PERCENT MOISTURE
   90U
   900
```

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.





Site Inspection Report

\$EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

GA DOOB295 144

II. SITE NAME AND LOCATION							
01 SITE NAME Legal common or descriptive name of site)		02 STREET, ROUTE NO , OR SPECIFIC LOCATION IDENTIFIER					
Westinghouse Electric Corpora	ction	Newton Bridge Road					
Athens		6A	E 05 ZIP CODE	clarke	0700UNF 7.3 30N3 2006 34ST		
33 58 21.0 083 23 44.0	TYPE OF OWNERSHI A. PRIVATE F. OTHER _			C. STATE II D COUNTY			
III. INSPECTION INFORMATION							
01 DATE OF INSPECTION 02 SITE STATUS 05 03 29 ACTIVE INACTIVE							
04 AGENCY PERFORMING INSPECTION. Check at that approx	ممال من						
TE STATE TE STATE CONTRACTOR	e of himi			NICIPAL CONTRACTOR	Vame or rm.		
OS CHIEF INSPECTOR	OB TITLE		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	07 ORGANIZATION	OS TELEPHONE NO		
Rebecca A. Hoffmann	Environn	nenta	al Scientist	NUS Corporation	1		
09 OTHER INSPECTORS	10 TITLE			11 ORGANIZATION	12 TELEPHONE NO		
Phillp Henderson	Geologi	st		NUS Corporation	(404)938-7710		
Ron Young	Sample			NUS Corporation	(404) 938-7710		
Ron Wilde	Sample	<u></u>		Nus Corporation	(404) 938-7710		
					()		
					()		
13 SITE REPRESENTATIVES INTERVIEWED Frank James	Environmenta Control Offic	cer	westinghous Newton Brida	ie Electic Corp. e Rd. Athens 6A.	16 TELEPHONE NO 14041548-3121		
					()		
					()		
					()		
					()		
					()		
17 ACCESS GAINED BY 18 TIME OF INSPECTION	19 WEATHER COND						
REPERMISSION 0820 ≈ 69°F, clear and sunny							
IV. INFORMATION AVAILABLE FROM							
Mario Villamarzo	U.S.E.				03 TELEPHONE NO (404) 347-5065		
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	TOB OR	GANIZATION	07 TELEPHONE NO.	08 DATE		
Rebecca A. Hoffmann	u.S.E.P.A	1		404-938-7710	05/30/90		

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	$\neg H$

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 2 - WASTE INFORMATION

I. IDENTIFICATION
OF STATE OF STATE NUMBER

AL			PART 2 - WAST	E INFORMATION	l	6A DOO	3295144
II. WASTES	TATES, QUANTITIES, AN	D CHARACTER	ISTICS				
	14783 - 14 + / 18 L	22 MASTE QUANT	ITY AT SITE	03 WASTE CHARACT	ERISTICS Check all that 12	GC:YI	
4 500.0	E SLUAR,	Measu es 2 ".a. 20	r weste quantifies Indepensent	X A TOXIC E SOLUBLE X I HIGHLY / OLATILE			
B POWDE X 0 SCUDG	A FINES AF LIQUID	TONS .		X S CORRO			
)		CUBIC YARDS	<u>unk</u>	O PERSIST			47'8LE
D OTHER	icec ty	NO OF DRUMS	V			W 101 AC	PUÇABÇE
III. WASTE T	YPE	**************************************					
CATEGORY	SUBSTANCE N	AME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS		
SLU	SLUDGE		unk				
OLW	OILY WASTE		unk				
SOL.	SOLVENTS		unk				
PSD	PESTICIDES						
occ	OTHER ORGANIC CH	EMICALS	 		<u> </u>		
ioc	NORGANIC CHEMIC		 				
ACD	ACIOS		 				
BAS	BASES		unk				
MES	HEAVY METALS		unk				
	OUS SUBSTANCES See AG		unk	L			
01 CATEGORY	02 SUBSTANCE N		03 CAS NUMBER	04 STORAGE DISE	OSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
O CA COOM	Phosphoric ac		7664-38-2	K (-		CONCENTRATION
			7647-01-0	2, 22 gal.	arums	unk	
	hydrochloric a			3, 33 gal.	drums	unk	
	methyl ethyl Ki	elone.	NONE	5, 33 901	drums	unk	
	Kerosene		none	5, 53 gal.	drums	unk	
	xylene		1330-20-7	5, 55 gal	. drums		
	· · · · · · · · · · · · · · · · · · ·		Ļ				
			ļ	ļ			<u> </u>
							
							
V. FEEDSTO	CKS SEE AUCETON WOAS Number	Wai		<u> </u>	 		
CATEGORY	J1 FEEDSTOC	< NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTO	OCK NAME	JZ CAS NUMBER
=DS				FDS			
FDS			 	FDS			
FDS				FOS			
FDS	- 		 	FDS			
	COS INFORMATION		L				
	S OF INFORMATION CA			900115			
EPA	ind state fil	e mate	rial				

⊋.FPΔ

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

PART 3 - DESCRIPTION OF HA	AZARDOUS CONDITIONS AND INCIDENTS	GA 0003295144
II. HAZARDOUS CONDITIONS AND INCIDENTS		
31 X A GROUNOWATER CONTAMINATION 33 POPULATION POTENTIALLY AFFECTED	32 DBSERVED (DATE) 34 NARRATIVE DESCRIPTION	POTENTIAL I ALLEGED
There is not a liner	present at the la	ndfill
01 X8 SURFACE WATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED	J2 XOBSERVED (DATE 05/03/87) 34 NARRATIVE DESCRIPTION	POTENTIAL ALLEGED
Sediment samples collect pathway revealed the pre	ted along possible surt esence of inorganic co	Sace water migration mamination
01 XC CONTAMINATION OF AIR 03 POPULATION POTENTIALLY AFFECTED:	02 TOBSERVED (DATE.)	& POTENTIAL _ ALLEGED
Contaminated soils on the	surface of the landfill	are uncontained
01 ID FIRE EXPLOSIVE CONDITIONS 03 POPULATION POTENTIALLY AFFECTED:	02 TOBSERVED (DATE) 04 NARRATIVE DESCRIPTION	POTENTIAL ALLEGED
01 X E. DIRECT CONTACT 03 POPULATION POTENTIALLY AFFECTED	02 TOBSERVED (DATE) 04 NARRATIVE DESCRIPTION	Z POTENTIAL ALLEGED
There are no fences or the landfill.	barriers to entry in p	lace around
01 X F CONTAMINATION OF SOIL D3 AREA POTENTIALLY AFFECTED Acres	02 X OBSERVED (DATE 05/03/89) 04 NARRATIVE DESCRIPTION	T POTENTIAL T ALLÉGED
21 IG DRINKING WATER CONTAMINATION 23 POPULATION POTENTIALLY AFFECTED:	02 _ OBSERVED (DATE) 04 NARRATIVE DESCRIPTION	T POTENTIAL T ALLEGED
01 TH WORKER EXPOSURE INJURY 03 WORKERS POTENTIALLY AFFECTED	02 OBSERVED (DATE:) 04 NARRATIVE DESCRIPTION	POTENTIAL ALLEGED
01 XI POPULATION EXPOSURE INJURY 03 POPULATION POTENTIALLY AFFECTED:	04 NARRATIVE DESCRIPTION	X POTENTIAL ALLEGED
There is a population of 4-mile site radius.	of approximately 49,884	within the

SEPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

PART 3 - DESCRIPTION OF HA	ZARDOUS CONDITIONS AND INCID	ENTS GA DO	03295144
IL HAZARDOUS CONDITIONS AND INCIDENTS CONTINUED			
01 X J DAMAGE TO FLORA	02 TOBSERVED (DATE	POTENTIAL	ALLEGED
Contamination of surface the landfill.	e soils has been	documented	at
01 T K DAMAGE TO FAUNA 04 NARRATIVE DESCRIPTION include name 1 or species.	02 I OBSERVED (DATE:) _ POTENTIAL	_ ALLEGED
01 T L CONTAMINATION OF FOOD CHAIN 04 NARRATIVE DESCRIPTION	02 TOBSERVED (DATE) Z POTENTIAL	2 ALLEGED
01 I M UNSTABLE CONTAINMENT OF WASTES	02 COBSERVED (DATE	POTENTIAL	ALLEGED
Soits Runori Standing vibuds Leaking drums: O3 POPULATION POTENTIALLY AFFECTED:	04 NARRATIVE DESCRIPTION		
01 T N DAMAGE TO OFFSITE PROPERTY 04 NARRATIVE DESCRIPTION	02 TOBSERVED (DATE) _ POTENTIAL	_ ALLEGED
01 TO CONTAMINATION OF SEWERS, STORM DRAINS, WWTPS 04 NARRATIVE DESCRIPTION	02 TOBSERVED (DATE) = POTENTIAL	I ALLEGED
01 TP ILLEGAL UNAUTHORIZED DUMPING 04 NARRATIVE DESCRIPTION	02 TOBSERVED (DATE) _ POTENTIAL	_ ALLEGED
05 DESCRIPTION OF ANY OTH ER KNOWN, POTENTIAL, OR ALLE C	GED HAZARDS		
III. TOTAL POPULATION POTENTIALLY AFFECTED: 49,8	184 (air pathway)		
IV. COMMENTS			
V. SOURCES OF INFORMATION (Cité specific references e.g. state free s	ampre analysis - eporrs.		
EPA, state file material			

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION PART 4 - PERMIT AND DESCRIPTIVE INFORMATION 1. IDENTIFICATION OF STATE C2 SITE NUMBER A DOO 32 95						
						II. PERMIT INFORMATION
OF TARE DE REPAIR SSUED	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS		
A NPOES						
a vic		1				
, C. AIR		<u> </u>				
D RCRA						
E RCRA INTERIM STATUS						
F SPCC PLAN						
I G STATE SUPERIN						
TH LOCAL Specify.						
I: OTHER Scocie.						
XJ NONE				landfill i	used 1457 - 1970	
III. SITE DESCRIPTION						
01 STORAGE DISPOSAL Check air that accity) 02	AMOUNT C3 UNIT OF	MEASURE 34 TR	EATMENT Check at that as	DO(Y)	05 OTHER	
_ A SURFACE IMPOUNDMENT		= A.	INCENERATION			
_ B PILES		= 8	UNDERGROUND INJE	ECTION	A BUILDINGS ON SITE	
C DRUMS, ABOVE GROUND		1	CHEMICAL PHYSICA	L	ļ	
D. TANK, ABOVE GROUND			BIOLOGICAL			
E. TANK. BELOW GROUND X F. LANDFILL	unk.	i	WASTE OIL PROCES! SOLVENT RECOVER!		06 AREA OF SITE	
I G. LANDFARM		l -	OTHER RECYCLING		41 4000	
_ H OPEN DUMP		1	OTHER			
☐ I OTHER		}	Soe	City	1	
OFFICE PORTS OF THE ACTIVE PORTS OF WESTINGHOUSE DISPOSED OF MANUfacturing wastes in a landfill from 1957 to 1970. The landfill is located approximately 900 feet northeast of the active portion of westinghouse.						
westinghouse dis	iposed ot	manut	acturing u	vastes	in a landfill	
from 1957 to	1970. The	landfil	lis loca	ited ap	proximately	
900 feet northe	ast of th	e activ	e pertieux	of u	sestiva house	
TOO LEEL THE TOTAL	22(00 ()		C po. (100	() ()	, , , , , , , ,	
IV. CONTAINMENT						
01 CONTAINMENT OF WASTES Check ones						
	& B. MODERATE	I C INADEQU	JATE, POOR	I D. INSECU	IRE, UNSOUND. DANGEROUS	
02 DESCRIPTION OF DRUMS DIKING, LINERS, BAR				_		
The landfill has There are severa landfill but not	been cov	ered wi	th soil a	nd is	heavily vegetated.	
There are sever	1 rusty dr	wins lo	ated on	the su	irface of the	
landfill but not	a significa	nt num	ber.			
to the time to the time to	- 0.5					
V. ACCESSIBILITY						
31 WASTE EASILY ACCESSIBLE X YES	I NO					
See Direct Contac	t under h	razardous	s conditio	us and	incidents	
See Direct contact under hazardous conditions and incidents						
VI. SOURCES OF INFORMATION Core 2000	ic references, e.g. state (res. samo)	e analysis i sparts		····		
EPA and state fi	le materi	al				
)	

	POTI	ENTIAL HAZAI	RDOUS WASTE	SITE		NTIFICATION
SEPA	SITE INSPECTION REPORT					TE 02 SITE NUMBER DO03395144
	PART 5 - WATER	R, DEMOGRAPH	IC, AND ENVIRO	NMENTAL DATA		
II. DRINKING WATER SUPPLY						
C1 TYPE OF DRINKING SUPPLY (1960) 33 Applicable		02 STATUS			03 (DISTANCE TO SITE
SURFACE	WELL	ENDANGER		MONITORED	ł	~ 4
COMMUNITY A Z	8 🖺 0. 🔉	A. I	8. II 8. II	C. 2 27 F. □	A .	
III. GROUNDWATER		· · · · · · · · · · · · · · · · · · ·			<u></u>	
DI GROUNDWATER USE IN VICINITY CHECK	one)					
I A ONLY SOURCE FOR DRINKING	XB DRINKING Other sources evaluate COMMERCIAL, IN No other water source	DUSTRIAL, IRRIGATIO	Limited other	CIAL, INDUSTRIAL, IRRIGA ¹ sources evenedie)	rion I	D NOTUSED UNUSEABLE
02 POPULATION SERVED BY GROUND WA	TER 11.4	-	03 DISTANCE TO NE	AREST DRINKING WATER	WELL	(mi)
04 DEPTH TO GROUNDWATER	05 DIRECTION OF GRO	DUNDWATER FLOW	06 DEPTH TO AQUIFE	R 07 POTENTIAL YIEL	م	08 SOLE SOURCE AQUIFER
varies w/topography	varies		746	(m) 37440	_ (apd)	XYES INO
09 DESCRIPTION OF WELLS (including useage.			<u> </u>			
There are 3 known private wells within the 4-mile siteradius						
10 RECHARGE AREA			11 DISCHARGE AREA			
XYES COMMENTS TO TECHARGE OCC	urs in topog	raphic highs	X VES COMM	ents harge occurs	in top	ographic lows
IV. SURFACE WATER						
01 SURFACE WATER USE Chack ones						
A RESERVOIR RECREATION DRINKING WATER SOURCE		N. ECONOMICALLY IT RESOURCES	I C. COMME	RCIAL. INDUSTRIAL	⊒ D.	NOT CURRENTLY USED
02 AFFECTED POTENTIALLY AFFECTED BO	DOIES OF WATER					
NAME				AFFECTED		DISTANCE TO SITE
43			٦. ٠. ٥			
Nove-there are			face usate	<u> </u>	 -	(mi)
migration from	A CAR SII					(mil
V. DEMOGRAPHIC AND PROPERTY INFORMATION						
31 TOTAL POPULATION WITHIN	THE CHARTON			02 DISTANCE TO NEAR	ST POPUL	ATION
ONE 11 MILE OF SITE TW	O (2) MILES OF SITE	THREE (B) MILES OF SITE			
	18 71 8	c L	8, 265		0.5	(UI)
33 NUMBER OF BUILDINGS WITHIN TWO (2)	MILES OF SITE		34 DISTANCE TO NEA	REST OFF-SITE BUILDING		
				0. 3	im	11)
DS POPULATION WITHIN VICINITY OF SITE	Province observations of					
Within a 4-mile site radius, the area is comprised, in descending percentage, of rural/undeveloped, residential, commercial, and industrial property.						

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

I. IDENTIFICATION 01 STATE 02 SITE NUMBER

GA | DO03295144 PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA VI. ENVIRONMENTAL INFORMATION 1 PERMEABILITY OF UNSATURATED ZONE CHOCK THE A 10-5 - 10-5 cm sec __ 8 10-4 - 10-5 cm/sec __ \$ 0.10-4 - 10-3 cm/sec __ 0. GREATER THAN 10-3 cm/sec JU PERMEABILITY OF BECROOK THAT THE BLE B RELATIVELY IMPERMEABLE XC RELATIVELY PERMEABLE C D. VERY PERMEABLE . A IMPERMEABLE 33 DEPTH TO BEDROCK 34 DEPTH OF CONTAMINATED SOIL ZONE 05 SOIL PH varies (n) unk JE NET PRECIPITATION OF ONE YEAR 24 HOUR RAINFALL SITE SLOPE , DIRECTION OF SITE SLOPE, TERRAIN AVERAGE SLOPE east 39 FLOOD POTENTIAL I SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY SITE IS IN _____YEAR FLOODPLAIN 11 DISTANCE TO WETLANDS 15 acre minimumi 12 DISTANCE TO CRITICAL HABITAT for andengared apeciagi ESTUARINE OTHER ENDANGERED SPECIES: 13 LAND USE IN VICINITY DISTANCE TO AGRICULTURAL LANDS
AG LAND RESIDENTIAL AREAS, NATIONAL STATE PARKS. FORESTS, OR WILDLIFE RESERVES COMMERCIAL INDUSTRIAL PRIME AG LAND A 0.3 8 0.7 (mi) c unk (mi) o unk (mi) 14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY The landfill is located on a ridge approximately 900 feet from the WEC facility. The land slopes down gradually towards the east. The area is heavily vegetated with large tree and underbrush. VII. SOURCES OF INFORMATION | Cité specific references, e.g., state fies, sample analysis (réports) EPA and State file material

\$EPA	•	SITE INSPECTION REPORT OF STATE	02 SITE NUMBER D003295144
II. SAMPLES TAKEN			
SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	 		
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	7	Region IV Environmental Protection Against tical service laboratory, Athens, 6A	CY 6/19/89
VEGETATION			
OTHER Sediment	a	same as above	6/19/89
III. FIELD MEASUREMENTS TA	KEN		
IV. PHOTOGRAPHS AND MAPS			
DI TOPE STOREND TAERIAL		02 in custopy of NUS Corporation	
33 MAPS 34 LOCATION	S Corporat	ion Region IV	
V. OTHER FIELD DATA COLLE	CTED : Provide namene desc	cration/	
dan	4 ~ ~ 11	as conducted to delineate areas leged to have been buried, and to aformation that would aide in to gnificant magnetic anomalies we was surveyed. Two locations with our sampling.	n arroundse
VI. SOURCES OF INFORMATIO	N. Cita specific references, p.	g state nees samo e una volo sono	
· · · · · · · · · · · · · · · · · · ·		Corporation file material	

ŞEPA	POTENTIAL HA		ECTION REPORT	OI STATE OF SITE NUMBER		
PART 7-			WHER INFORMATION GA DOO			
. CURRENT OWNER(S)			PARENT COMPANY I Japinesoies			
Nestinghouse Electric	Composition	02 D+8 NUMBER	Westinghouse Electric		09 D+8 NUMBER	
	- Harrison	J4 SIC CODE		2017	11 SIC CODE	
Newton Bridge Rd.	OG STATE	O7 ZIP CODE	11 Stanwix Street	[1] STATE	14 ZIP CODE	
Athens	GA	30613	Pittsburg	PA	15222	
NAME		02 0+8 NUMBER	OS NAME		09 0+8 NUMBER	
STREET ADDRESS P D Box RFD + HC		04 SIC CODE	10 STREET ADDRESS P O Box. AFD # etc.	,	11 SIC CODE	
scity	IOS STATE	07 ZIP CODE	12 CITY	112 STATE	14 ZIP CODE	
		3500			14211 0002	
1 NAME		02 D+8 NUMBER	OB NAME		09 D+8 NUMBER	
STREET ADDRESS P O BOX RED # HC;		04 SIC CODE	10 STREET ADDRESS /P O. Box. RFO # DIC	,	11 SIC CODE	
SCITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE	
NAME		02 D+8 NUMBER	08 NAME 0904		090+8 NUMBER	
D3 STREET ADDRESS, P O Box. AFD P etc.,		04 SIC COD€	10 STREET ADDRESS (P.O. Box. RFO #. arc.)		1 1 SIC CODE	
S CITY	OG STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE	
I. PREVIOUS OWNER(S) (List most re	cant imati		IV. REALTY OWNER(S) IN appointable.	est maet recent first)		
NAME		02 D+8 NUMBER	01 NAME		02 D+B NUMBER	
03 STREET ADDRESS P O BOS. AFD + HC .		04 SIC CODE	03 STREET ADDRESS (P O. BOX RFO # MC	,	04 SIC CODE	
CITY	OSTATE	07 ZIP COD€	05 CITY	08 STATE	07 ZIP CODE	
11 NAME 02 04		02 D+8 NUMBER	01 NAME		02 D+8 NUMBER	
03 STREET ADDRESS (P.O. dat AFO P. etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. doz. RFO # orc.	,	04 SIC CODE	
CITY	O6 STATE	07 ZIP COO€	05 CITY	O6 STATE	07 ZIP CODE	
NAME		02 0+8 NUMBER	01 NAME		02 D+8 NUMBER	
03 STREET ADDRESS # 3 301 AFO # etc		04 SIC CCDE	03 STREET ADDRESS (P.O. dox. RFO P. orc.)		04 SIC CODE	
CITY	06STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE	
. SOURCES OF INFORMATION (
・ うししれしとろ しゃ (内をし代解系) (口内 🕢	146 specific references.	8.0. SIBIR IVES SAMPLE BOBYS	is 1900ff\$)			

O FDA	•	PC		ARDOUS WASTE SITE		FICATION 32 SITE NUMBER
		_	CTION REPORT		D003295 144	
7			PART 5 - OPER	ATOR INFORMATION		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
II. CURRENT OPERATO	OR Provide a afferent from	owner!		OPERATOR'S PARENT COMPAN	Y // sparespie	
01 NAME			02 D+8 NUMBER	10 NAME		11 3+8 NUMBER
		,		1		1
DE CARTEET ADDRESS A 2 Se	os AFO e ero		04 SIC CODE	12 STREET ADDRESS PO BOZ AFD P MC.		1 3 SIC CODE
05 CITY		OB STATE	07 ZIP CODE	I 4 CITY	115 STATE	1 6 ZIP CODE
						3002
08 YEARS OF OPERATION	09 NAME OF OWNER		L			<u> </u>
OF TEARS OF OPERATION	i de la company					
	<u> </u>					
III. PREVIOUS OPERAT	OR(S) (List most recent for	st. provide on	ry d aitherent from owner)	PREVIOUS OPERATORS' PAREN	T COMPANIES	f aconcación
01 NAME			02 0+8 NUMBER	10 NAME	10 NAME	
				_ 1		
03 STREET ADDRESS : P 0 &	s, RFD # etc.)		04 SIC COD€	12 STREET ADDRESS (P.O. Box. RFD P. MC.)		13 SIC CODE
			ĺ			Ì
05 CITY		OB STATE	07 ZIP COD€	14 CITY	15 STATE	16 ZIP CODE
	ļ					
08 YEARS OF OPERATION	09 NAME OF OWNER D	URING THE	S PERIOD			
Q1 NAME			02 0+8 NUMBER	10 NAME		TIT 0+8 NUMBER
•			i			
03 STREET ADDRESS (P O Box	950 4 arr i		104 SIC CODE	12 STREET ADDRESS (P O Bost RFD # arc.)		T13 SIC CCCE
US STREET REARIESSIF O BO	i aros sici		0.000	12 STREET ADDRESS IF O. BOX. APO F. SIE.)		35.0002
05 CITY		06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
						<u> </u>
08 YEARS OF OPERATION	09 NAME OF OWNER 0	HI DMIRUK	S PERIOD	1		
01 NAME			02 D+B NUMBER	10 NAME		110+B NUMBER
03 STREET ADORESS (P.O. 804	, RFD # etc.)		04 SIC CODE	12 STREET ADDRESS IP O. Box. AFD P. orc		13 SIC CODE
]			
05 CITY	·	OG STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
					ł	
08 YEARS OF OPERATION	09 NAME OF OWNER D	UNING THE	S PERIOD			<u></u>
IV. SOURCES OF INFO	PMATION CO.					
				900/18/		
EDA 1	la Car	1	1			
EPA and 5	me tile	Wate	emal			

	,	POTENTIAL HAZ	ARDOUS WASTE SITE	I. IDENTIFI		
SFPA		SITE INSPECTION REPORT			01 STATE 02 SITE NUMBER 6A D003295144	
176171	PART	9 - GENERATOR/T	RANSPORTER INFORMATION	ON E	003843174	
II. ON-SITE GENERATOR						
D. HAME		02 D+8 NUMBER				
Lubestinghama Flectric Com	aration	j				
Newton Bridge Road	<u> </u>	34 SIC CODE			i	
Newton Bridge Road						
as arry	US STATE	07 ZIP CODE				
Athens	6A	30613				
III. OFF-SITE GENERATOR(S)						
J1 VAME		02 D+8 NUMBER	Q1 NAME		02 D+8 NUMBE#	
03 STREET ADDRESS P 0 Box PFC + erc :		04 SIC CODE	03 STREET ADDRESS P.O. Box. RED # etc.		G4 SIC CCCE	
	100.00.00					
OS CITY	OB STATE	07 ZIP CODE	los city	DO STATE	07 ZIP CODE	
01 NAME	<u> </u>	02 D+8 NUMBER	01 NAME		02 D+8 NUMBER	
V 17000					OZ D P B NOMBEN	
03 STREET ADDRESS P O Box RFO . NC .		104 SIC CODE	03 STREET ADDRESS (P O Bos. RFD + MC)		104 SIC CODE	
		0.0000				
05 CITY	06 STATE	07 ZIP COD€	los city	O6 STATE	07 ZIP CODE	
IV. TRANSPORTER(S)	4					
01 NAME		02 D+8 NUMBER	Q1 NAME	1	02 D+8 NUMBER	
03 STREET ADDRESS PO Box AFD . etc :		04 SIC CODE	03 STREET ADDRESS IP O BOX AFO P MC !		04 SIC CODE	
		1				
05 CITY	OS STATE	07 ZIP CODE	OS CITY	06 STATE	07 ZIP CODE	
	L					
3: NAME		02 D+B NUMBER	di NAME		02 D+8 NUMBER	
		1				
03 STREET ADDRESS P 0 Soz AFD + erc)		04 SIC CODE	03 STREET ADORESS (P. D. Box. RFD #. etc.)		04 SIC CODE	
	75.75.55			- Janasisi		
05 CITY	06 STATE	07 ZIP CODE	os city	OB STATE	07 ZIP CODE	
	<u> </u>	<u>L</u>		l		
V. SOURCES OF INFORMATION (Cite specific	c references.	e.g., state fries, samore analysi	\$ 1 00/15)			
		1 . 1				
EPA and State file	ma	terial				

SEPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 10 - PAST RESPONSE ACTIVITIES

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
69 D003295144

YEFA	PART 10 - PAST RESPONSE ACTIVITIES		GA D003295144
II. PAST RESPONSE ACTIVITIES		·	
04 DESCRIPTION NO.	OZ DATE	03 AGENCY	
31] B. TEMPORARY WATER SUPPLY PROVIDED 34 DESCRIPTION	ED 32 DATE	03 AGENCY	
01 _ C PERMANENT WATER SUPPLY PROVIDE 04 DESCRIPTION	D 02 DATE	03 AGENCY	
01 TO SPILLED MATERIAL REMOVED 04 DESCRIPTION	02 DATE	03 AGENCY	
01 TE CONTAMINATED SOIL REMOVED 04 DESCRIPTION	02 DATE	03 AGENCY	
01 T F WASTE REPACKAGED 04 DESCRIPTION	02 DATE	03 AGENCY	
01 G WASTE DISPOSED ELSEWHERE 04 DESCRIPTION	02 DATE	03 AGENCY	
01 TH ON SITE BURIAL 04 DESCRIPTION	02 DATE	03 AGENCY	
01 I I IN SITU CHEMICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY	
01 TU IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY	
01 Z K IN SITU PHYSICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY	
01 I L ENCAPSULATION 04 DESCRIPTION	02 DATE	03 AGENCY	
01 TM EMERGENCY WASTE TREATMENT 24 DESCRIPTION	02 DATE	03 AGENCY	
01 N. CUTOFF WALLS 04 DESCRIPTION	S2 DATE	03 AGENCY	
31 (1) 3 EMERGENCY DIKING SURFACE WATER 04 DESCRIPTION	OIVERSION 32 CATE	03 AGENCY	
01 I P CUTOFF TRENCHES SUMP 04 DESCRIPTION	02 CATE	03 AGENCY	
01 I Q SUBSURFACE CUTOFF WALL C4 DESCRIPTION	02 DATE	03 AGENCY	

SEPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 10 - PAST RESPONSE ACTIVITIES

1. IDENTIFICATION

01 STATE 02 SITE NUMBER

6 A D003995144

VEIA	PART 10 - PAST RESPONSE ACTIVITIES	10H 10003945144
II PAST RESPONSE ACTIVITIES Continued		
31 THE BARRIER WALLS CONSTRUCTED 34 DESCRIPTION	OZ DATE	03 AGENCY
01 TS CAPPING COVERING 04 DESCRIPTION	02 DATE	03 AGENCY
01 I T BULK TANKAGE REPAIRED 04 DESCRIPTION	02 DATE	03 AGENCY
31 I U GROUT CURTAIN CONSTRUCTED 04 DESCRIPTION	02 DATE	03 AGENCY
01 T V BOTTOM SEALED 04 DESCRIPTION	02 DATE	03 AGENCY
01 T W GAS CONTROL 04 DESCRIPTION	02 DATE	
01 T.X. FIRE CONTROL 04 DESCRIPTION	02 DATE	03 AGENCY
01 TY LEACHATE TREATMENT 04 DESCRIPTION	O2 DATE	03 AGENCY
01 Z Z. AREA EVACUATED 04 DESCRIPTION	02 DATE	03 AGENCY
01 T : ACCESS TO SITE RESTRICTED 04 DESCRIPTION	02 DAYE	03 AGENCY
01 T 2 POPULATION RELOCATED 04 DESCRIPTION	02 DATE	03 AGENCY
01 = 3 OTHER REMEDIAL ACTIVITIES 04 DESCRIPTION	O2 DATE	03 AGENCY

III. SOURCES OF INFORMATION (Cite specific references, e.g., state (185 sample shallysis reports)



POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER GA DO03295144

II. ENFORCEMENT INFORMATION

DI PAST REGULATORY ENFORCEMENT ACTION (195) X40

DZ DESCRIPTION OF PEDERAL ISTATE GUIÇAL REGULATORY ENFORCEMENT ACTION

NONE

III. SOURCES OF INFORMATION .Cre-specific references, e.g., state files, sample analysis, reports;

APPENDIX D

¥ .

Background 1029

MAG FIELD DATA SHEET

page __ of __

ſ	STA	TION					
ŀ	×	Y	Reading	Reading	Reading	Average (gammas)	Comments
1	0	0	52588				
	O		52599				
	0	2	52602				
	0	3	52599				
	0	4	52612				
	n	5	52630				
	0	6	52642				
	0	7	52657				
	0	8	52676				
				·			
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]						

* Field data sheet is an extension of Geophysical Logbook <u>F7-1377</u>.

Location <u>Wesfinghouse</u> Albany GA Ave 52622

File name Wesf

2

Station 0,0

MAG FIELD DATA SHEET

_				7	7		
	STA	ATION					
	х	Y	Reading	Reading	Reading	Average (gammas)	Comments
	0	0	52690				
	0		52453				
	0	2	52569				
	_0	3	53765				
	0	4	52540				
_	0	5	52727				
	D	6	53146				
	0	7	52736				
	9	8	52447				
		9	52575				
		10	53123				
		//	52195				
			52396				
	-/-/-		52625				
			52716				
	_	2	52616				
			52614				
	4		19772				
_	5		52899				
	6		53277				
	8		53427				
-	19		2249				
_	10	15	1793				
-	11						

*	Field data sheet is an extension of Geophysical Logbook	
	cation	

MAG FIELD DATA SHEET

and the second

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*	Field data sheet is an extension of Geophysical Logbook	
Lo	cation	

MAG FIELD DATA SHEET

STA	TION	ON						
х	Υ	Reading	Reading	Reading	Average (gammas)	Comments		
4	4	52866						
	5	52535						
	6	52420						
	2	52523						
	8	52527						
\bigvee	9	52556						
-1	0							
	1							
	2							
	3							
	4	52544						
	5	52450						
	6	52279						
	7	53242						
	б	53420						
į	9	53200						
	10	52737						
	<i>[[</i>	52848						
4	12	53438						

rield deta sileacis an extension of deophysical Lo	dpook
Location	

DOCUMENTATION RECORDS FOR HAZARD RANKING SYSTEM

<u>INSTRUCTIONS</u>: As briefly as possible summarize the information you used to assign the score for each factor (e.g., "Waste quantity = 4,230 drums plus 800 cubic yards of sludges"). The source of information should be provided for each entry and should be a bibliographic-type reference. Include the location of the document.

FACTORS NOT SCORED DUE TO INSUFFICIENT INFORMATION:

Air Route

Fire and Explosion

COMMENTS OR QUALIFICATIONS:

GROUND WATER ROUTE

1. OBSERVED RELEASE

Contaminants detected (5 maximum):

NIA

Rationale for attributing the contaminants to the facility:

2. ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifer(s) of concern:

The site is located in the Piedmont Physiographic Province, Crystalline Rock Aquifers Contain groundwater in this area. Depth to groundwater varies with precipitation. In the unconsolidated materials overlying fractured rocks, groundwater could be located as shallow as 50 feet or as deep as 70 feet, Groundwater in Fractures may occur as less as 450-500 feet. Groundwater the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

Groundwater could be as shullow as 50 feet.

Depth from the ground surface to the lowest point of waste disposal/storage:

There is no waste disposal on-site.

(Ref. 1)

Net Precipitation

Mean Annual or seasonal precipitation (list months for seasonal): 48 inches per year

(Ref. 9)

Mean annual lake or seasonal evaporation (list months for seasonal): 40 inches per year

(Ref. 12)

Net precipitation (subtract the above figures):

8 inhes peryear

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

Soils consist of sandy loams and clayey loams of the Appling and Davidson series of the Cecil Association.

(Ref. 9)

Permeability associated with soil type:

All soils in the area are "moderately permeable."

Approximate rate of hydrantic conductivity = 10-3 10-5 cm/sec (Ref. 9,12)

Physical State

Physical state of substances at time of disposal (or at present time for generated gases):

All sibstances of concern are liquids or sludges.

(Ref.1)

3. CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

There is no on-site disposal or surface impundments, Storage areas for trychloroethylene and waste dums have the containment walls. (Ref. 1)

Method with highest score:

The trich loro ethylone storage tanks are on an unlined earthen surface with no containment walls. (Ref. 1)

WASTE CHARACTERISTICS 4.

Toxicity and Persistence

Compound(s) evaluated:

Electroplating sludge - (high in mixet)

Trichlo-oethylene sludge

Paint thinner sludge

(Ref. 1)

Napha mixed with machine oil Compound with highest score:

Trichloroethylene sludge

(Ref. 12)

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of O (Give a reasonable estimate even if quantity is above maximum):

Approximately 99 drums of waste materials are produced

each quarter.

(Kef.1)

Basis of estimating and/or computing waste quantity:

Waste quantities are according to Mr. Bob Mills, Loss

Control Administrator.

(Ref. 1)

5. TARGETS

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

There are 92 horseholds (350 people) using groundwater

within three miles of the facility, City water (surface water from

N: Oconce River) is available to all 92 of these horseholds.

(het.1)

Distance to the Nearest Well

Location of nearest well drawing from <u>aquifer of concern</u> or occupied building not served by a public water supply:

Nearest well is approximately one mile northwest of the facility. The road is not named on the map, but it runs east-west between Newton Bridge Rand and U.S. Rauke 441. (Apt.1)

Distance to above well or building:

one mile

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified water-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius and populations served by each:

There are no municipal wells within 3 miles of the facility.

(Reli)

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

There is no irrigation with groundwater within 3 miles of the facility.

(Ref. 8)

Total population served by ground water within a 3-mile radius:

350.

(Rof.1,5)

SURFACE WATER ROUTE

1. OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

No sufface weeks or sediment samples were taken,

(Ref. 5)

Rationale for attributing the contaminants to the facility:

NA

2. ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent: 2%

(Ref. 6,1)

Name/description of nearest downslope surface water:

An unmarred tributary to the North Oconee River runs east-west about 1500' south of the facility.

Average slope of terrain between facility and above-cited surface water body in percent: 2%

(Rel. 6, 7)

Is the facility located either totally or partially in surface water?

10

(Ref. 6)

Is the facility completely surrounded by areas of higher elevation? No - elevations are slightly higher to the north, west, and south.

(Ref. 6)

1-Year 24-Hour Rainfall in Inches

3 inches.

(Ref. 9)

Distance to Nearest Downslope Surface Water

1500 Feet

- (Ref. 6)

Physical State of Waste

All wastes are liquid or sludge

(Ref. 1)

6. **CONTAINMENT**

Containment

Method(s) of waste or leachate containment evaluated: (Same as grandwater) There is no on-site disposal or surface impoundments, 5-torage areas for trichloroethylone and waste droms have no containment walls, (Ref. 1)

Method with highest score:

The trichloroethylone storage tanks are on an anlined earthon surface with no containment walls, (Ref. 12)

4. WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:

Electroplating studge - (high in nickel) Trichloro ethylene studge

Paint thinner sludge

Napha mixed with machine oil

(Ref.1)

Compound with highest score:

Trichloroethylone sluge

(Ref. 12)

Hazardous Waste Quantity

Total quantity of hazardous substances at the facility, excluding those with a containment score of 0 (Give reasonable estimate even if quantity is above maximum):

Approximately 99 drums of waste materials are produced each quarter.

(Ref. 1)

Basis of estimating and/or computing waste quantity:

Waste quantities are according to Mr. Bob Mills Loss Control Administrator.

(Ref.1)

5. TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Drinking water is supplied to Clurke, Ocones, and Madisons
Counties from the North and Middle Oconese Rivers. The Athens
Water Works has an intake on the North Oconese located about
3/4 miles from the facility and slightly descentivean from it. There is
no known use of the North of Middle Oconese Rivers for irrigation.
There are no restrictions concerning fishing or recreational use of
the North or Middle Oconese Rivers.

(Ref1, 8)

Is there tidal influence?

No

(Ref. 6)

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

There are no coastal wetlands in the shdy were.

(Ref. 6)

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

There are no fresh-water wetlands , , the study area.

(Ref. 6) ..

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

There are no critical habitats of endangered species or national wildlife refuge in the study area.

(Ref. 13)

Population Served by Surface Water

Location(s) of water-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance and population served by each intake:

The City of Athens has a water-supply intake on the North Occure River about 3/4 mi. east and slightly downstream of the facility.

(Ref. 8)

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

There is no known use of surface water for irrigation in the ship area.

(Ref. 8)

Total population served:

(Ref. 8) ...

Name/description of nearest of above water bodies: N/A

Distance to above-cited intakes, measured in stream miles: N/A

AIR ROUTE - Not Scored

1. OBSERVED RELEASE

Contaminants detected:

Date and location of detection of contaminants:

Methods used to detect the contaminants: .

Rationale for attributing the contaminants to the site:

2. WASTE CHARACTERISTICS

Reactivity and Incompatibility

Most reactive compound:

Most incompatible pair of compounds:

Toxicity

Most toxic compound:

Hazardous Waste Quantity

Total quantity of hazardous waste:

Basis of estimating and/or computing waste quantity:

3. TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

0 to 4 mi.

0 to 1 mi.

0 to ½ mi.

0 to ¼ mi.

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

Distance to critical habitat of an endangered species, if 1 mile or less:

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Distance to residential area, if 2 miles or less:

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

	FIRE AND EXPLOSION - Not Scored	
1.	CONTAINMENT Hazardous substances present:	
	Type of containment, if applicable:	

2. WASTE CHARACTERISTICS

Direct Evidence

Type of instrument and measurements:

Ignitability

Compound used:

Reactivity

Most reactive compound:

Incompatibility

Most incompatible pair of compounds:

Total	quantity	of	hazardous	substances	at	the

3. TARGETS

Distance to Nearest Population

Distance to Nearest Building

Distance to Sensitive Environment

Distance to wetlands:

Distance to critical habitat:

Land Use

Distance to commercial/industrial area, if 1 mile or less:

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

Distance to residential area, if 2 miles or less:

Distance to agricultural land in production within past 5 years, if 1 mile or less:

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

Population Within 2-Mile Radius

Buildings Within 2-Mile Radius

DIRECT CONTACT

1. **OBSERVED INCIDENT**

Date, location, and pertinent details of incident:

There is no known "incident" except for the fuel cil spill in 1985. This spill was cleaned up and the conteminated soils were removed from the sike.

2. **ACCESSIBILITY**

Describe type of barrier(s):

The facility is fenced, and a grand is on duty 24 hrs/day

(Ref. 1)

3. **CONTAINMENT**

Type of containment, if applicable:

Waste drums are stored in an area with no confairment walls. Trichloroethylene is stored in an outside above-ground storage tank with no containment walls and no protection of the ground surface. (Red. 1)

WASTE CHARACTERISITCS 4.

Toxicity

Compounds evaluated:

Electropluting slulge Trichlimethylene slidge

Paint thinner sludge Napha mixed with machine oil Compound with highest score:

Trich broethy/ene

(Ref.1)

(Ref. 12)

5. TARGETS

Population within one-mile radius

approximately 5276

(Ref.1)

Distance to critical habitat (of endangered species)

There are no critical habitats within the study area.
(Ref. 13)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV COLLEGE STATION RD. ATHENS, GA. 30613

*****MEMORANDUM*****

DATE: 06/14/89

SUBJECT: Results of Purgeable Organic Analysis;

WESTINGHOUSE ELECT. 89-400

ATHENS

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

PURGEABLE ORGANICS DATA REPORT	EPA-REGION IV ESD, ATHENS, GA.	713/69
*** * * * * * * * * * * * * * * * * *		* * * * * *
UG/KG 930000U CHLOROMETHANE 930000U VINYL CHLORIDE 930000U BROMOMETHANE 930000U GILOROETHANE 930000U TRICHLOROETHANE 930000U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE) 9,3E6U ACETONE 9,3E6U CARBON DISULFIDE 930000U METHYLENE CHLORIDE 930000U TRANS-1,2-DICHLOROETHENE 930000U 1,1-DICHLOROETHANE 9,3E6U VINYL ACETATE 930000U 1,1-DICHLOROETHENE 930000U 2,2-DICHLOROPROPANE 9,3F6U METHYL ETHYL KETONE 930000U BROMOCHLOROMETHANE 930000U 1,1-TRICHLOROETHANE 930000U 1,1-TRICHLOROETHANE 930000U 1,1-TRICHLOROETHANE 930000U 1,1-DICHLOROPROPENE 930000U 1,2-DICHLOROPROPENE 930000U 930000U TRICHLOROETHANE 930000U 1,2-DICHLOROETHANE 930000U 930000U BROMOCHLOROETHANE 930000U 1,2-DICHLOROPROPENE 930000U 1,2-DICHLOROPROPENE 930000U 930000U BROMOCHLOROETHANE 930000U 930000U BROMOCHLOROETHANE 930000U 930000U BROMOCHLOROETHANE	UG/KG ANALYTICAL RESULTS 930000U CIS-1,3-DICHLOROPROPENE 9.366U METHYL ISOBULYL KETONE 930000U TOLUENE 930000U TRANS-1,3 DICHLOROPROPENE 930000U TRANS-1,3 DICHLOROPROPENE	

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

(

PURGEABLE ORGANICS DATA REPORT	EPA-REGION IV ESD, A	RIHENS, GA.	06/13/89
- 444 * * * * * * * * * * * * * * * * *	* * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * **
** PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE	TYPE: SOIL PI	ROG ELEM: NSF COLLECTED BY: R YOUNG ITY: ATHENS ST: GA	**
** SOURCE: WESTINGHOUSE ELECT.	C	TTY: ATHENS ST: GA DLLECTION START: 05/04/89 1225 STOP: 00/00/00	**
** STATION ID: 56-03 SUBSURFACE SOTE #03	CC	DLLECTION START: 05/04/89 1225 STOP: 00/00/00	**
₹ ₹			**
UG/KG ANALYTICAL RESULTS		* * * * * * * * * * * * * * * * * * *	* * ***
•		/KG ANALYTICAL RESULTS	
110U CHLOROMETHANE 110U VINYL CHLORIDE 110U BROMOMETHANF 110U CHLOROETHANE 110U IRICHLOROF! UOROMETHANE 110U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	110	OU CIS 1,3-DICHLOROPROPENE	
1100 VINYL CHLORIDE	1100		
110U BROMOMETHANE	110		
110U CHLOROETHANE	110		
110U TRICHLOROFT UOROMETHANE	110		
110U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)	110		
1100U ACETONE 1100U CARBON DISULFIDE	5 1 9	0U 1,3-DICHLOROPROPANE	
1100 CARBON DISOLFIDE	1100 110		
110U TRANS-1, 2-DICHLOROETHENE	110	OU CHLOROBENZENE	
110U 1,1-DICHLOROETHANE	110		
1100U VINYL ACETATE	110		
110U CIS-1.2-DICHLOROETHENE	110		
110U 2.2-DICHLOROPROPANE	110	OU O-XYLENE	
1100U METHYL ETHYL KETONE	110		
110U BROMOCHLOROMETHANE	110		
110U CHLOROFORM 110U 1,1,1-TRICHLOROETHANE	110 110		
110U 1,1-DICHLOROPROPENE	1 1		
1100 CARBON TETRACHLORIDE	11		
110U 1,2-DICHLOROETHANE	111	OU P-CHLOROTOLUENE	
1100 BÉNZENE	110	00 1,3-DICHLOROBENZENE	
110U TRICHLOROFTHENE(TRICHLOROFTHYLENE)	116	OU 1.4-DICHLOROBENZENE	
110U 1,2-DICHLOROPROPANE	111		
110U DIBROMOMETHANE	19.0	O PERCENT MOISTURE	
110U BROMODICHLOROMETHANE			

REMARKS

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

PURGEABLE ORGANICS DATA REPORT	EFA REGION IV ESD, ATTENS, GA.	00/13/53
** SOURCE: WESTINGHOUSE ELECT: ** STATION ID: SS-01 BACKGROUND SURFACE SOIL **	MPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: CITY: ATHENS ST COLLECTION START: 05/03/89 15	: GA
UG/KG ANALYTICAL RESULTS	UG/KG	* * * * * * * * * * * * * * * * * * *
39U CHLOROMETHANE 39U VINYL CHLORIDE 39U BROMOMETHANE 39U CHLOROETHANE 39U TRICHLOROFLUOROMETHANE 39U TRICHLOROFLUOROMETHANE 39OU ACETONE 39OU ACETONE 39OU CARBON DISULFIDE 39U METHYLENE CHLORIDE 39U TRANS-1, 2-DICHLOROETHENE 39U 1, 1-DICHLOROETHANE 39U VINYL ACETATE 39U CIS-1, 2-DICHLOROETHENE 39U 2,2-DICHLOROPROPANE 39U METHYL ETHYL KETONE 39U METHYL ETHYL KETONE 39U BROMOCHLOROMETHANE 39U CHLOROFORM 39U 1, 1, 1-TRICHLOROETHANE 39U 1, 1, 1-TRICHLOROETHANE 39U 1, 2-DICHLOROPROPENE 39U 1, 2-DICHLOROETHANE 39U TRICHLOROETHANE 39U TRICHLOROETHANE 39U TRICHLOROETHANE 39U TRICHLOROETHANE 39U BENZENE 39U DIBROMOMETHANE	39U CIS-1,3-DICHLOROPROPENE 39U METHYL ISOBUTYL KETONE 39U TRANS-1,3-DICHLOROPROPENE 39U TRANS-1,3-DICHLOROPROPENE 39U TETRACHLOROETHANE 39U TETRACHLOROETHENE(TETRAC 39U MÉTHYL BUTYL KETONE 39U MÉTHYL BUTYL KETONE 39U DIBROMOCHLOROMETHANE 39U CHLOROBENZENE 39U CHLOROBENZENE 39U 1,1,1,2-TETRACHLOROETHAN 39U ETHYL BENZENE 39U O-XYLENE 39U O-XYLENE 39U STYRENE 39U STYRENE 39U BROMOFORM 39U BROMOFORM 39U BROMOBENZENE 39U 1,2,3-TRICHLOROPROPANE 39U 1,2,3-TRICHLOROPROPANE 39U 1,2-TETRACHLOROETHAN 39U 1,2-DICHLOROBENZENE 39U 1,3-DICHLOROBENZENE 39U 1,2-DICHLOROBENZENE	HLOROETHYLENE)

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

PURGEARI E	ORGANICS DATA REPORT	CPA-REGION IV ESD,	ATHENS, GA.		06/13/89
*** * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * *	* * * * * * *	* * * * * * * * * * * * * * * * * * *	* * * * ***
	ECT NO. 89-400 SAMPLE NO. 34905 SAMPLE CE: WESTINGHOUSE ELECT.			F COLLECTED BY: R YOUNG ST: GA	**
** STAT	CE: WESTINGHOUSE ELECT. ION ID: SB-01 BACKGROUND SUBSURFACE SOIL		COLLECTION STA	ART: 05/03/89 1550 STOP: 00/00/00	**
**	* * * * * * * * * * * * * * * * * * * *				**
ŬĠ/KĠ			IG/KG	ANALYTICAL RESULTS	* * * * ***
46U	CHLOROMETHANE		46U CIS-1.3-	-DICHLOROPROPENE	
46U	VINYL CHLORIDE		1600 METHYĽ]	ISOBUTYL KETONE	
46U 46U	BROMOMETHANE CHLOROETHANE		46U TOLUENE 46U TRANS-1.		
460	TRICHLOROFLUOROMETHANE 1,1-DICHLOROFTHENE(1,1-DICHLOROE(HYLENE)			,3-DICHLOROPROPENE RICHLOROFTHANE	
460	1,1-DICHLOROLTHENE(1,1-DICHLOROL!HYLENE)		460 TETRACHL	LOROETHENE(TETRACHLOROETHYLENE)	
4600	ACETONE		46U 1,3-DICH	HLOROPROPANE	
460U 46U	CARBON DISULFIDE METHYLENE CHLORIDE			BUTYL KETONE CHLOROMETHANE	
46U	TRANS-1, 2-DICHLOROETHENE		46U CHLOROBE		
46U	1.1-DICHLOROETHANE		460 1.1.1.2-	-TETRACHLOROETHANE	
4600	VINYL ACETATE		46U ETHYL BE	ENZENE	
46U 46U	CIS-1,2-DICHLOROETHENE 2,2-DICHLOROPROPANE		46U (M- AND) 46U O-XYLENE	OR P-)XYLENE	
460U	METHYL ETHYL KETONE		46U STYRENE		
46U	BROMOCHLOROMETHANE		46U BROMOFOR	RM	
460	CHLOROFORM		46U BROMOBEN	NZENE	
46U 46U	1,1,1-TRICHLOROL[HANE 1,1-DICHLOROPROPENE		46U 1,1,2,2- 16U 1,2,3-TF	-TETRACHLOROETHANE RICHLOROPROPANE	
46Ŭ	CARBON TETRACHLORIDE			OTOLUENE	
46U	1,2-DICHLOROETHANE		46U P-CHLORO	OTOLUENE	
46U	BÉNZENE TRICHE OPOSTUSME (FOLICIE OPOSE SAME AND)		46U 1,3-DIC	HLOROBENZENE	
46U 46U	TRICHLOROFTHENE(TRICHLOROFTHYLENE) 1,2-DICHLOROPROPANE			HLOROBENZENE HLOROBENZENE	
46U	DIBROMOMETHANE			HLOROBENZENE MOISTURE	
460	BROMODICHLOROMETHANE	_,	, CHOLINI	THE BOLL VILL	

REMARKS

^{***}FOOTNOTES***

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

PURGEABLE ORGANICS DATA REPORT	LFA-REGION IV E	LOD, ATTENS, GA.	(76) 13/89
*** * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * *		
** PROJECT NO. 89-400 SAMPLE NO.	34906 SAMPLE TYPE: SUIL	PROG ELEM: NSF COLLECTED BY: R YOUN	IG **
** SOURCE: WESTINGHOUSE ELECT.	IMENT COLL	CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1630 ST	**
** STATION ID: SD-01 BACKGROUND SED	IMENI SOIT	COLLECTION START: 05/03/89 1630 ST	TOP: 00/00/00 **
	* * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	**
UG/KG ANALYTICAL RE	SULTS	UG/KG ANALYTICAL RESULTS	
	342.3	ou, nu mari Toar Nesser	,
44U CHLOROMETHANE_		44U CIS 1,3-DICHLOROPROPENE	
44U VINYL CHLORIDE	LOROETHYLENE)	4400 METHYL ISOBUTYL KETONE	
44U BROMOMETHANE		44U TOLUENE	
44U CHLOROETHANE 44U TRICHLOROFI.UOROMETHANE		44U TRANS-1,3 DICHLOROPROPENE	
440 1.1-DICHLOROETHENE(1.1-DICH	I CHOCK THAT EME !	44U 1.1.2-IRICHLOROFTHANE 44U TETRACHLOROETHENE(TETRACHLOROET	THAT ENE Y
4400 ACETONE	LONGETHYLLINE	44U TETRACHLOROETHENE (TETRACHLOROET 44U 1,3-DICHLOROPROPANE	INTLENE)
440U CARBON DISULFIDE		440U METHYL BUTYL KETONE	
44U METHYLENE CHLORIDE		44U DIBROMOCHLOROMETHANE	
44U TRANS-1, 2-DICHLOROETHENE		44U CHLOROBENZENE	
44U 1,1-DICHLOROETHANE		44U 1,1,1,2-TETRACHLOROETHANE	
440U VINYL ACETATE		44U ETHYL BENZENE	
44U CIS-1,2-DICHLOROETHENE 44U 2,2-DICHLOROPROPANE		44U (M- AND/OR P-)XYLENE	
440U METHYL ETHYL KETONE		44U O-XYLENE 44U STYRENE	
44U BROMOCHLOROMETHANE		44U BROMOFORM	
44U CHLOROFORM		44U BROMOBENZENE	
44U 1,1,1-TRICHLOROETHANE		44U 1,1,2,2-TETRACHLOROETHANE	
44U 1,1 DICHLOROPROPENE		44U 1,2,3-TRICHLOROPROPANE	
44U CARBON TETRACHLORIDE		44U O-CHLOROTOLUENE	
44U 1,2-DICHLOROETHANE		44U P-CHLOROTOLUENE	
44U BENZENE 44U TRICHLOROFTHENE(IRICHLOROFT	DVI CNE'I	44U 1,3-DICHLOROBENZENE 44U 1,4-DICHLOROBENZENE	
44U 1,2-DICHLOROPROPANE	TILENL/	440 1,4-DICHLOROBENZENE	
44U DIBROMOMETHANE		33.0 PÉRCENT MOISTURE	
44U BROMODICHLOROMETHANE		OCIO FERRENCE MOTOTORE	

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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PURGEABLE ORGANICS DATA REPORT
*** PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG ***

** SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA **

** STATION ID: SD-02 SEDIMENT SOIL #02 COLLECTION START: 05/03/89 1815 STOP: 00/00/00 ***
* *
                                                                                                                                               - -
UG/KG ANALYTICAL RESULTS
                                                                            UG/KG
                                                                                                  ANALYTICAL RESULTS
         CHLOROMETHANE
                                                                             73U CIS-1.3-DICHLOROPROPENE
    73Ü
          VINYL CHIORIDE
                                                                                    METHYL ISOBUTYL KETONE
                                                                            7300
           BROMOMETHANE
                                                                             730
                                                                                    TOLUTNE
           CHLOROETHANE
    73Ŭ
                                                                                    TRANS-1.3-DICHLOROPROPENE
                                                                              730
    730
           TRICHLOROFI, UOROMETHANE
                                                                             730
                                                                                    1 1 2-IRICHLOROFTHANE
    730
           1.1-DICHLOROETHENE(1.1-DICHLOROETHYLENE)
                                                                             730
                                                                                    TETRACHLOROFTHENE (TETRACHLOROFTHYLENE)
   7300
           ACE TONE
                                                                              730
                                                                                    1 3-DICHLOROPROPANE
                                                                                    METHYL BUTYL KETONE
DIBROMOCHLOROMETHANE
           CARBON DISULFIDE
                                                                            7300
   730U
    73Ŭ
           METHYLENE CHLORIDE
                                                                             730
    73U
           TRANS-1, 2-DICHLOROETHENE
                                                                              73Ú
                                                                                    CHLOROBENZENE
    73Ŭ
           1.1-DICHLOROETHANE
                                                                              730
                                                                                    1,1,1,2-TETRACHLOROETHANE
ETHYL BENZENE
           VINYL ACETATE
CIS-1, 2-DICHLOROETHENE
2,2-DICHLOROPROPANE
   730Ü
                                                                              730
                                                                                    (M- AND/OR P-)XYLENE
O-XYLENE
    73U
                                                                              73Ú
    730
                                                                              73U
           METHYL ETHYL KETONE
   730Ŭ
                                                                              73Ŭ
                                                                                    STYRENE
    730
           BROMOCHLOROMETHANE
                                                                              73Ŭ
                                                                                    BROMOFORM
     730
           CHLOROFORM
                                                                              730
                                                                                    BROMOBENZENE
                                                                                    1,1.2.2-TETRACHLOROETHANE
1,2,3-TRICHLOROPROPANE
           1.1.1-TRICHLOROETHANE
                                                                              73Ŭ
     73U
     730
           1.1 DICHLOROPROPENE
                                                                              73U
           CARBON TETRACHLORIDE
1,2-DICHLOROETHANE
                                                                                    O-CHLOROTOLUENE
P-CHLOROTOLUENE
     7:30
                                                                              730
     730
                                                                              73U
           BÉNZENE
                                                                              730
                                                                                    1.3-DICHLOROBENZENE
     73Ú
                                                                                    1.4-DICHLOROBENZENE
1,2-DICHLOROBENZENE
           TRICHLOROETHENE(TRICHLOROETHYLENE)
     730
                                                                              73U
           1.2-DICHLOROPROPANE
     730
                                                                              73U
           DIBROMOMETHANE
     73U
                                                                           48 0
                                                                                    PERCENT MOISTURE
           BROMODICHLOROMETHANE
     7311
```

REMARKS

FOOTNOTES

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS, GA.

06/13/89

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT PROG FLEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. * * ** COLLECTION START: 05/04/89 1120 STOP: 00/00/00 STATION ID: SS-04 SURFACE SOIL #04 * * * * * *

ANALYTICAL RESULTS UG/KG

566UN TRIMETHYLBENZENE (3 ISOMERS)

FOOTNOTES

^{*}NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

^{*}K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV COLLEGE STATION RD. ATHENS, GA. 30613

*****MEMORANDUM*****

DATE: 06/15/89

Results of Pesticide/PCB Analysis; SUBJECT:

89-400 WESTINGHOUSE ELECT.

ATHENS

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT



PESTICIDES/PCB'S DATA REPORT	EFA-REGION IV ESD, ATTEMS, GA.	00/14/03
** PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE ** SOURCE: WESTINGHOUSE ELECT. ** STATION ID: SB-02 SUBSURFACE SOIL #2	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1005 STOP:	**
UG/KG ANALYTICAL RESULTS	* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * *
8.1U ALDRIN 8.1U HEPTACHLOR 8.1U HEPTACHLOR FPOXIDE 8.1U ALPHA-BHC 8.1U BETA-BHC 8.1U GAMMA-BHC (LINDANE) 8.1U DLLIA-BHC 8.1U ENDOSULFAN I (ALPHA) 8.1U DIELDRIN 8.1U A,4'-DDT (P,P'-DDT) 8.1U 4,4'-DDT (P,P'-DDE) 8.1U 4,4'-DDD (P,P'-DDD) 8.1U ENDRIN 8.1U ENDOSULFAN II (BETA) 8.1U ENDOSULFAN SULFATE 42U CHLORDANE (TECH. MIXTURE) /1 62U PCB-1242 (AROCLOR 1244)	62U PCB-1232 (AROCLOR 1232) 62U PCB-1248 (AROCLOR 1248) 62U PCB-1016 (AROCLOR 1260) 62U PCB-1016 (AROCLOR 1016) 310U TOXAPHENE CHLORDENE /2 ALPHA-CHLORDENE /2 BETA CHLORDENE /2 GAMMA-CHLORDENE /2 TRANS-NONACHLOR /2 TRANS-NONACHLOR /2 ALPHA-CHLORDANE /2 CIS-NONACHLOR /2 OXYCHLORDANE /2 OXYCHLORDANE (OCTACHLOREPOXIDE) /2 19U METHOXYCHLOR 8.1U ENDRIN KETONE 22 PERCENT MOISTURE	2

62Ŭ

PCB-1221 (AROCLOR 1221)

REMARKS

FOOTNOTES

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1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

(

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM

EPA-REGION IV ESD, ATHENS, GA. 06/14/89

DEC	TICIDES/PCB'S DATA REP	OPT	EPA-REGION IV E	SU, ATHE	NS, GA.		06/14/89
	·	-					
**		SAMPLE NO. 34900 SAME				OLLECTED BY: R YOUNG	
**	SOURCE: WESTINGHOUSE	ELECT.		CÎTŸ:	ATHENS	ST: GA	* **
**	STATION ID: SS-02 SU	RFACE SOIL #02				05/04/89 1020 STO	P: 00/00/00 **
**						•	**
***							* * * * * * * * * * * * * * *
	UG/KG A	NALYTICAL RESULTS		UG/KG		ANALYTICAL RESULTS	
	22U ALDRIN			2100	PCB-1232 (ARC	OCL OR 1333)	
	22U HEPTACHLOR			2100	PCB-1248 (ARC		
	22U HEPTACHLOR FPOX	ine		2100	PCB-1260 (ARC		
	22U ALPHA-BHC	100		2100	PCB-1016 (ARC		
	22U BETA-BHC			1400Ŭ	TOXAPHENE	0020K 10107	
	22U GAMMA BHC (LIND	ANE)			CHLORDENE /	2	
	22U DEL (A-BHC				ALPHA-CHLORDI		
	22U ENDOSULFAN I (A	LPHA)			BETA CHLORDE	NE /2	
	50U DIELDRIN				GAMMA-CHLORDI		
	22U 4,4'-DDT (P,P'-	DDI)			1-HYDROXYCHLO		
	22U 4,4'-DDE (P,P'- 22U 4,4'-DDD (P,P'- 22U ENDRIN				GAMMA-CHLORD	ANE /2	
	22U 4,4'-DDD (P,P'-	000)			TRANS-NONACHI		
	22U ENDRIN 22U ENDOSULFAN II (DETAI			ALPHA-CHLORD	ANC /2 R /2	
	22U ENDOSULFAN II (310U ENDOSULFAN SULF	DCIA) ATE			CIS-NONACHLO	(OCTACHLOREPOXIDE)	10
	97U CHLORDANE (TECH			79U	METHOXYCHLOR		12
	2100 PCB-1242 (AROCL			330	ENDRIN KETON		
	210U PCB-1254 (AROCL	OR 1254)		14	PERCENT MOIS		
	210U PCB-1221 (AROCI			• •			

REMARKS

REMARKS

FOOTNOTES

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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

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PESTICIDES/PCB'S DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG STATION ID: SS-03 SURFACE SOIL #03 COLLECTION START: 05/04/89 1035 STOP: 00/00/00
**
                                                                                                                            **
**
**
                                                                                                                            **
                                                                                                                            * *
ANALYTICAL RESULTS
    UG/KG
                      ANALYTICAL RESULTS
                                                                   UG/KG
                                                                         PCB-1232 (AROCLOR 1232)
PCB-1248 (AROCLOR 1248)
         ALDRIN
                                                                 10000
   860
        HEPTACHLOR
                                                                 10000
    28U
         HEPTACHLOR EPOXIDE
                                                                  350JN PCB-1260 (AROCLOR 1260)
    28U
         ALPHA-BHC
                                                                  10000
                                                                         PCB-1016 (AROCLOR 1016)
   1600
         BETA-BHC
                                                                 1500U
                                                                         TOXAPHENE
                                                                         CHLORDENE /2
ALPHA-CHLORDENE /2
BETA CHLORDENE /2
GAMMA-CHLORDENE /2
    44U
         GAMMA BHC (LINDANE)
                                                                 ----
    28U
         DELIA-BHC
         ENDOSULFAN I (ALPHA)
    60U
         DIELDRIN
    43J
         4.4'-DDT (P.P'-DDT)
    280
                                                                         1-HYDROXYCHLORDENE
         4,4'-DDE (P.P'-DDE)
4,4'-DDD (P,P'-DDD)
                                                                         GAMMA-CHLORDANE /2
    66U
                                                                         TRANS-NONACHLOR
    74
                                                                         ALPHA-CHLORDANE
CIS-NONACHLOR
         ENDRIN
    48U
         ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
    48U
                                                                         OXYCHLORDANE (OCTACHLOREPOXIDE) /2
    48U
                                                                         METHOXYCHLOR
   2500
                                                                   68U
         PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
  1100
                                                                   28U
                                                                         ENDRIN KETONE
   3000
                                                                         PERCENT MOISTURE
```

10000

REMARKS

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRM 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE. C-CONFIRMED BY GC/MS

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PESTICIDES/PCB'S DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-04 SURFACE SOIL #04 PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1120 STOP: 00/00/00
                                                                                                                                   * *
                                                                                                                                    * *
                                                                                                                                    **
                                                                                                                                   * *
ANALYTICAL RESULTS
                                                                       UG/KG ANALYTICAL RESULTS
    23 ALDRIN
330 HEPTACHLOR
                                                                      440U PCB-1232 (AROCLOR 1232)
                                                                       440U
                                                                             PCB-1248 (AROCLOR 1248)
          HEPTACHLOR EPOXIDE
                                                                       440U
                                                                             PCB-1260 (AROCLOR 1260)
    41U
          ALPHA-BHC
                                                                       440U
                                                                             PCB-1016 (AROCLOR 1016)
    410
          BETA-BHC
                                                                      1600U
                                                                              TOXAPHENE
    41U
          GAMMA BHC (LINDANE)
                                                                              CHLORDENE
                                                                              ALPHA-CHLORDENE
          DELTA-BHC
    41 U
                                                                              BETA CHLORDENE /2
GAMMA-CHLORDENE /2
    41U
          ENDOSULFAN I (ALPHA)
                                                                                                /2
    66
          DIELDRIN
                                                                             GAMMA-CHLORDENE /2
TRANS-NONACHLOR /2
ALPHA-CHLORDANE /2
CIS-NONACHLOR /2
          4,4'-DDT (P,P'-DDT)
4,4'-DDE (P,P'-DDE)
4,4'-DDD (P,P'-DDD)
    79U
    940
    790
    79U
          ENDRIN
                                                                              CIS-NONACHLOR
    79U
          ENDOSULFAN II (BETA)
   150Ú
          ENDOSULFAN SULFATE
                                                                              OXYCHLORDANE (OCTACHLOREPOXIDE) /2
          CHLORDANE (TECH. MIXTURE) /1
   220U
                                                                              METHOXYCHLOR
          PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
   440U
                                                                       1000
                                                                              ENDRIN KETONE
   440U
                                                                              PERCENT MOISTURE
   440U
```

REMARKS

FOOTNOTES

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C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

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PESTICIDES/PCB'S DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1225 STOP: 00/00/00
**
. .
* *
UG/KG ANALYTICAL RESULTS
                                                                 UG/KG ANALYTICAL RESULTS
  8 1U ALDRIN
                                                                      PCB-1232 (AROCLOR 1232)
PCB-1248 (AROCLOR 1248)
  8.10 HEPTACHLOR
                                                                 62Ŭ
                                                                       PCB-1260 (AROCLOR 1260)
PCB-1016 (AROCLOR 1016)
TOXAPHENE
   8. 1U
         HEPTACHLOR FPOXIDE
                                                                 ĞŽÜ
   8.10
         AL PHA-BHC
                                                                 620
   8 10
         BETA-BHC
                                                                3100
   8. 1U
         GAMMA BHC (LINDANE)
                                                                       CHLORDENE
                                                                       ALPHA-CHLORDENE
         DEL I A-BHC
   8 10
                                                                       BETA CHLORDENE /2
GAMMA-CHLORDENE /2
   8.10
         ENDOSULFAN I (ALPHA)
   8. 1Ŭ
                                                                                       72
         DIELDRIN
        4,4'-DDT (P.P'-DDT)
4,4'-DDE (P.P'-DDE)
4,4'-DDD (P.P'-DDD)
                                                                       1-HYDROXYCHLORDENE
   8. 1U
   8.10
                                                                       GAMMA-CHLORDANE /2
                                                                       TRANS-NONACHLOR
   8 10
   8.10
         ENDRIN
                                                                       ALPHA-CHLORDANE
         ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
   8.10
                                                                       CIS-NONACHLOR
   8.10
                                                                       OXYCHLORDANE (OCTACHLOREPOXIDE) /2
         CHLORDANE (TECH. MIXTURE) /1
                                                                1.90
                                                                       METHOXYCHLOR
    42U
         PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
                                                                8 1Ŭ
    620
                                                                       ENDRIN KETONE
                                                                       PERCENT MOISTURE
                                                                 19
```

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/14/89

PESTICIDES/PCB'S DATA REPORT		55, 1, 55
** PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-01 BACKGROUND SURFACE SOIL	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS COLLECTION START: 05/03/89 1530 STOP	* * * * * * * * * * * * * * * * * * * *
**		**
UG/KG ANALYTICAL RESULTS	UG/KG ANALYTICAL RESULTS	* * * * * * * * * * * * * * * * * * * *
8.1UJ ALDRIN 8.1UJ HEPTACHLOR 8.1UJ HEPTACHLOR EPOXIDE 8.1UJ ALPHA-BHC 8.1UJ GAMMA-BHC (LINDANE) 8.1UJ GAMMA-BHC (LINDANE) 8.1UJ DELTA-BHC 8.1UJ ENDOSULFAN I (ALPHA) 8.1UJ DIELDRIN 8.1UJ 4,4'-DDT (P,P'-DDT) 8.1UJ 4,4'-DDD (P,P'-DDE) 8.1UJ 4,4'-DDD (P,P'-DDD) 8.1UJ ENDRIN 8.1UJ ENDOSULFAN II (BETA) 8.1UJ ENDOSULFAN SULFATE 42UJ CHLORDANE (TECH. MIXTURE) /1 62UJ PCB-1242 (AROCLOR 1242) 62UJ PCB-1254 (AROCLOR 1254) 62UJ PCB-1251 (AROCLOR 1251)	62UJ PCB-1232 (AROCLOR 1232) 62UJ PCB-1248 (AROCLOR 1248) 62UJ PCB-1260 (AROCLOR 1260) 62UJ PCB-1016 (AROCLOR 1016) 310UJ TOXAPHENE CHLORDENE /2 ALPHA-CHLORDENE /2 BETA CHLORDENE /2 GAMMA-CHLORDENE /2 GAMMA-CHLORDENE /2 TRANS-NONACHLOR /2 TRANS-NONACHLOR /2 ALPHA-CHLORDANE /2 OXYCHLORDANE /2 OXYCHLORDANE /2 OXYCHLORDANE /2 OXYCHLORDANE (OCTACHLOREPOXIDE) 19UJ METHOXYCHLOR 8.1UJ ENDRIN KETONE 19 PERCENT MOISTURE	/2

REMARKS

REMARKS

FOOTNOTES

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PESTICIDES/PCB'S DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1550 STOP: 00/00/00
ANALYTICAL RESULTS
   UG/KG
                                                                 UG/KG ANALYTICAL RESULTS
  8.1U ALDRIN
                                                                       PCB-1232 (AROCLOR 1232)
PCB-1248 (AROCLOR 1248)
   270
         HEPTACHLOR
                                                                 620
         HEPTACHLOR EPOXIDE
  8.10
                                                                 62U
                                                                       PCB-1260 (AROCLOR 1260)
                                                                       PCB-1016 (AROCLOR 1016)
TOXAPHENE
  8.10
         AL PHA-BHC
                                                                 620
  8 10
         BETA-BHC
                                                                 3100
         GAMMA BIIC (LINDANE)
                                                                       CHLORDENE
  8.10
                                                                       CHLORDENE /2
ALPHA-CHLORDENE
                                                                       BETA CHLORDENE /2
GAMMA-CHLORDENE /2
1-HYDROYYOUTENE /2
  8,10
         DEL 1 A-BHC
  8.1U
8.1U
         ENDOSULFAN I (ALPHA)
         DIELDRIN
        4,4'-DDT (P,P'-DDT)
4,4'-DDE (P,P'-DDE)
4,4'-DDD (P,P'-DDD)
                                                                        1-HYDROXYCHLORDENE
  8.10
                                                                        GAMMA-CHLORDANE
  8.10
                                                                        TRANS-NONACHLOR
  8 10
         ENDRIN
                                                                        ALPHA-CHLORDANE
  8. 1U
  8.10
         ENDOSULFAN II (BETA)
                                                                        CIS-NONACHLOR
         ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
                                                                        OXYCHLORDANE (OCTACHLOREPOXIDE) /2
                                                                190
                                                                       METHOXYCHLOR
        PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
   62Ŭ
                                                                 8. TÚ
                                                                        ENDRIN KETONE
                                                                        PERCENT MOISTURE
   62Ú
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REMARKS

FOOTNOTES

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PESTICIDES/PCB'S DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG

** SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA

** STATION ID: SD-01 BACKGROUND SEDIMENT SOIL COLLECTION START: 05/03/89 1630 STOP: 00/00/00
                                                                                                                                 * *
* *
ANALYTICAL RESULTS
                                                                      UG/KG ANALYTICAL RESULTS
                                                                           PCB-1232 (AROCLOR 1232)
PCB-1248 (AROCLOR 1248)
        ALDRIN
          HEPTACHLOR
                                                                      730
   9.50
          HEPTACHLOR EPOXIDE
                                                                      73U
                                                                            PCB-1260 (AROCLOR 1260)
   9.50
          ALPIIA-BHC
                                                                      730
                                                                            PCB-1016 (AROCLOR 1016)
   9 50
9 50
9 50
                                                                            TOXAPHENE
          BETA-BHC
                                                                     360U
                                                                            CHLORDENE /2
ALPHA-CHLORDENE
          GAMMA BIIC (LINDANE)
          DELTA-BHC
   9.50
9.50
                                                                            BETA CHLORDENE /2
GAMMA-CHLORDENE /2
          ENDOSULFAN I (ALPHA)
          DIELDRIN
          4,4'-DDT (P.P'-DDT)
                                                                            1-HYDROXYCHLORDENE
          4,4'-DDE (P,P'-DDE)
4,4'-DDD (P,P'-DDD)
                                                                            GAMMA-CHLORDANE
   9.50
9.50
                                                                            TRANS-NONACHLOR
          ENDRIN
                                                                            ALPHA-CHLORDANE
          ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
                                                                            CIS-NONACHLOR
                                                                            OXYCHLORDANE (OCTACHLOREPOXIDE) /2
   9.50
          CHLORDANE (TECH. MIXTURE) /1
    49U
                                                                            METHOXYCHLOR
          PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
    730
                                                                            ENDRIN KETONE
    73U
                                                                            PERCENT MOISTURE
```

REMARKS

FOOTNOTES

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PESTICIDES/PCB'S DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG ***

** SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA **

** STATION ID: SD-02 SEDIMENT SOIL #02 COLLECTION START: 05/03/89 1815 STOP: 00/00/00 ***
**
                                                                                                                                        * *
UG/KG ANALYTICAL RESULTS
                                                                         UG/KG ANALYTICAL RESULTS
    12U ALDRIN
                                                                               PCB-1232 (AROCLOR 1232)
          HEPTACHLOR
                                                                         900
                                                                                PCB-1248 (AROCLOR 1248)
          HEPTACHLOR FPOXIDE
                                                                         ŠŎŬ
                                                                                PCB-1260 (AROCLOR 1260)
    120
          ALPHA-BHC
                                                                         900
                                                                                PCB-1016 (AROCLOR 1016)
                                                                        450U
    120
          BETA-BHC
                                                                                TOXAPHENE
          GAMMA BIIC (LINDANE)
    120
                                                                                CHLORDENE
                                                                                ALPHA-CHLORDENE
    120
          DEL TA-BHC
                                                                                BETA CHLORDENE /2
GAMMA-CHLORDENE /2
    120
          ENDOSULFAN I (ALPHA)
                                                                                                  / /2
    120
          DIELDRIN
          4,4'-DDT (P,P'-DDT)
4,4'-DDE (P,P'-DDE)
4,4'-DDD (P,P'-DDD)
                                                                                1-HYDROXYCHLORDENE /2
    120
    120
                                                                                GAMMA-CHLORDANE /2
    120
                                                                                TRANS-NONACHLOR
          ENDRIN
     120
                                                                                ALPHA-CHLORDANE
          ENDOSULFAN II (BETA)
                                                                                CIS-NONACHLOR
    120
          ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
                                                                                OXYCHLORDANE (OCTACHLOREPOXIDE) /2
    120
                                                                                METHOXYCHLOR
    61U
          PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
    90Ú
                                                                         120
                                                                                ENDRIN KETONE
    900
                                                                                PERCENT MOISTURE
          PCB-1221 (AROCLOR 1221)
    900
```

REMARKS

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UNITED STATES ENVIRONMENTAL PROTECTION AGEN **REGION 5** 230 SOUTH DEARBORN ST.

CHICAGO, ILLINOIS 60604



REPLY TO ATTENTION OF:

Date: FEB 1 3 1990

Regional Site Assessment Manager Contacts TO:

FROM: Linda Martin, SAM Region

RE: Kick off Conference Call for the National Site Assessment

Managers Association (NSAMA)

I really appreciate all the interest shown for the NSAMA in Santa Fe, NM. I was able to get one contact person from each Regional office. Thank you!

I am writing this memo to get started on organizing this Association. I have enclosed a list of names and address for each contact person along with a draft agenda for our first call. I would like to hold the call on Feb 25 or Feb 28 from 1 to 3pm eastern time. Please let me know ASAP which date you prefer. for some reason you can not attend please have someone else from your region sit in on the call. I will forward details on the call as soon as they are available. If there are any changes to the Contact list or if you have any other agenda items you wish to add please let me know.

Also for your review, I have attached a copy of a proposed SAM survey and copies of the RPM association charter and By Laws. thought that we could develop our charter and by laws from this example. You might want to collect ideas from other SAMs in your region to present during this call. If you have any further questions or concerns about anything please feel free to contact me (FTS 353-9486). Thank you for your help.

Attachments

I will arrange a confuence room when I get the exact data for end. call. Out in Soute Fe I was appointed contact, but for end. call. Out in Soute Fe I was appointed contact, but I think this is something one are all interest in. Please complete the I think this is something and return to might AP.

DRAFT AGENDA

- Define a SAM
 - What does a SAM do
 - what does each region define as a SAM
 - Gear this to be a professional organization
- SAM Survey
 - -Is this needed
 - -Ideas on changes
 - -Volunteer to compile data
 - -Make a SAm directory out of the data
- RPM Charter
 - -should we use as a base for our charter
 - -Volunteer to draft SAM charter
- RPM By Laws
 - Should we use as a base for our by laws
 - Volunteer to draft SAM by laws
- Other items of concern
- Next call

SAM SURVEY

Objective: To determine if Superfund SAM's are interested in forming a national organization, Once collated, the results will be returned to the Regions. Information from this and other surveys might also be used to develop a SAM directory. Thank you for your assistance.

SAM Name:			
Phone #:	Region:	Mail Code:	
1. Would a national organization	on for SAMs be	beneficial?	
2. Would you participate in successful YES NO	ch an organiza	tion?	
3. What priorities/goals should	l a SAM organi:	zation have?	
	Career Develop Technical Ass Networking Sharing of exp Information Cother	istance/trans periences learing House	
4. Should a regular national me	eting be held	?	YES NO
5. How ∉requently should a nati	onal meeting l	oe held? Y Twice a Other	
6. What committees might be for	ormed to addres	ss SAM issues	?
	Career Develor Communication Training/educe Technical Training/educe Other	n cation	

7. Any other comments/questions/ideas?

I. STATEMENT OF ESTABLISHMENT

On this day the United States Environmental Protection Agency's (EPA) Remedial Project Managers (RPM's) have assembled to formalize their establishment of the National Association of Remedial Project Managers (NARPM).

II. STATEMENT OF PURPOSE

The NARPM is expressly chartered to the following purposes:

- A. To further the professional development of its membership, more specifically:
 - 1. To foster and encourage in its members the finest professional work ethic.
 - 2. To stimulate its members to produce work of outstanding professional quality and technical competence.
 - 3. To recognize outstanding professional achievement among its membership.
 - 4. To encourage its members to maintain and further develop their technical base and their knowledge of the state of the art through continued learning.
 - To foster public and private awareness of the technical competence and professional achievement of its membership.
- B. To stimulate among its membership a justifiable pride in the value to humanity of the professional work they do, including:
 - 1. Actions taken in defense of public health and life.
 - 2. Actions taken in defense of our environment.
 - 3. Actions taken in defense of public welfare and property.
- C. To seek and foster technical excellence by:
 - Encouraging intra- and inter-Regional technology transfer and disseminating theoretical and practical information regarding innovative technical applications to current and future remedial response actions.
 - Encouraging direct communication between RPMs regarding work in progress, with special emphasis on methodology.

- D. To improve communication and interaction between the Regions and with Headquarters by:
 - 1. Stimulating ongoing dialogue among RPMs through the scheduling, planning, and conducting of National RPM conferences on a bi-annual basis, and other periodic area or zone activities as needed.
 - 2. Providing a National forum for dialogue and consensus regarding issues of ongoing and current concern to RPMs, and regarding potential solutions to matters affecting their work and their careers.
 - Providing recommendations to the Agency for consideration of such proposed consensus solutions to problems affecting RPMs.
- E. To establish and nurture a sense of unity, purpose and teamwork among RPMs.

To the above purposes the undersigned to subscribe, and in witness thereto set their hands, that this National Association of Remedial Project Managers be established on this _____ day of _____ 1989.

ATTACHMENTS

NARPM Interim Bylaws

I. Statement of Intent

These Interim Bylaws are established and approved by a majority vote of the Regional Representatives of the National Association of Remedial Project Managers, with the intent that they shall serve the purposes of NARPM as contained in the Charter, until such time as first National Conference of NARPM is held.

II. Membership in NARPM

- A. Membership, except as modified below, is limited to Remedial Project Managers employed by the U.S. Environmental Protection Agency, engaged in or supervising oil or hazardous materials incident response activities as provided under Federal law.
- B. Membership in this Association shall cease on the effective date of resignation from the U.S. Environmental Protection Agency or transfer to duties other than as provided under II-A, above.
- C. Membership, as defined (II-A) above, shall be considered <u>active</u>. Members retiring from Federal service or detached from qualifying duty for over 365 days may, upon written request, remain as <u>inactive</u> members.
- D. Active memberships may be granted by NARPM Council balloting following receipt of voluntary request, verbal or written, from qualified persons (per II-A above), and upon payment of NARPM dues as defined below.
- E. Voting shall be restricted to active members.
- F. Honorary membership may, from time to time, be granted to any person deemed by the active membership by majority (IV-F) vote to have demonstrated outstanding dedication to environmental conservation or to the chartered purposes of this Association. (See II-G and V-H of these bylaws).
- G. Honorary membership granted by this Association shall become effective only upon receipt of written acceptance from the grantee, or from heirs or assigns of the grantee.
- H. Membership may be revoked for cause (actions unbecoming an RPM). A revocation action should be: initiated PER IV-H below, by a majority of the elected council members and confirmed by a majority vote (IV-E below). Should such unbecoming conduct be attributed to (a) council member(s), then any three (3) active members acting together may refer

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the issue of revocation to the active membership, detailing the charge. Any active member referred for revocation shall have: the right to vote on the matter, a copy of the charge and 60 days to present refuting testimony to the active membership prior to the start of the 30 day balloting period. Revocation of (a) council member(s) shall initiate the balloting period for replacement. The elected replacement council member(s) shall be, for this purpose only, exempt from the provisions of III-C and II-D, below, and shall serve only the remainder of the revoked council member(s) term(s).

I. Active membership in this Association may be involuntarily or voluntarily converted to inactive membership for reasons of nonparticipation. For this purpose, participation shall be deemed to include voting during the year in at least 50% of the general ballotings, attendance at a minimum of one Regional or National meeting per year, and payment of dues established elsewhere in these Bylaws.

III. Organization of NARPM

- A. This Association is founded squarely upon its active membership, which is its own governing body. In consequence, all major decisions shall be taken by, and in accord with, a balloting of the active members by name against the roster.
- B. Since it is impractical to frequently assemble the entire active membership, a representative council shall be elected by the active membership. The council shall consist of fourteen active members, one of which shall be Chair, one Vice Chair, one Treasurer, one Secretary, and ten Regional Representatives. The chartering election balloting shall elect the Chair, Vice Chair, Treasurer and Secretary for two years and the Regional Representatives for one year. Subsequent elections shall select the appropriate replacement council members to serve two year terms and shall be held prior to 30 days from the end of the term, thus guaranteeing a continuity of current experience on the council. Regional Representatives will be elected by majority vote of each region's active membership. Should a Regional Representative be unable to attend a council meeting, he/she may designate an alternate RPM to serve for this purpose.
- C. Since the purpose of the Council is to serve and involve the active membership, no council member shall serve more than one council term in any four year period.

IV. NARPM Balloting Procedures, Membership Vote

- A. Balloting shall be by written, signed vote on a simple form.
- B. Ballots shall normally be cast by placing them in the ballot box, in the NARPM Secretary's office, or alternately by mailing the ballot to the NARPM Secretary.

- C. Ballots shall be counted, within 30 days of the hallot date, by the NARPM Secretary or, in the case of revocation, by any 3 active members assembled, and reported to the NARPM Council within 30 additional days.
- D. Balloting shall require a quorum, with over 50% of the active membership voting, in order to constitute a valid vote.
- E. A majority vote shall consist of quorum plus agreement, pro or con, by over 50% of the total active membership.
- . A unanimous vote shall consist of agreement, pro or con, of all the non-abstaining hallots cast, quorum per IV-D, and majority per IV-E above.
- G. Ballots shall allow each active member to vote approval (pro) or disapproval (con) on any issue, or to abstain. Ballots cast abstaining shall count toward quorum and shall constitute participation (II-I) in the balloting.
- H. Issues requiring balloting shall be presented to the council chair by any active member, in writing. No issue shall be presented to the active membership for balloting without prior majority agreement of the council, except as provided in II-H. above.
- I. Ballots may be accompanied (covered) by a copy of the issue request, IV-H, above, but shall contain title and summary of the issue, and shall be cast alone.
- J. Issues presented to the active membership and requiring a consensus/majority vote shall be considered approved if the required majority (IV-E) votes approval (pro), shall be considered disapproved if the required majority votes disapproval (con) and shall be considered tabled if no quorum is achieved within 30 days, or if neither "pro" nor "con" receives a majority (per IV-E). Tabled issues shall not be re-balloted unless re-presented per IV-H, above.
- K. Issues of proposed change to the Charter, Bylaws or annual dues shall be decided by active membership vote.

V. Balloting Procedure, NARPM Council

- A. Balloting per IV-A.
- B. Ballots cast shall be mailed to the NARPM Secretary, except for balloting conducted during a council meeting.
- C. Ballots shall be tallied by the Secretary, and original hallots verified at the next RPM Conference or NARPM Council meeting, whichever comes first.

- D. Results of NARPM Council decisions, recommendations, or discussions shall be reported to the Regional Representatives within 60 days of the halloting period established by the Council.
- E. Matters of simple funding dishursal under \$500.00 shall be decided by council balloting alone. Matters of minor petty cash (under \$100.00) dishursal shall not require balloting and may be authorized by any two officers.
- F. Matters of funding disbursal over \$500.00 shall be presented for membership vote per IV-A through K, above, excepting initial incorporation costs, which are approved herewith.
- G. On matters of national import or controversial nature, the council may opt to present the issue(s) for membership balloting per IV-A through K, above.
- H. Honorary membership can be granted by council balloting in response to a proposal from a Regional Representative.
- I. The Chair will not ordinarily vote in matters requiring council ballotingunless balloting results in a tie vote, in which case the Chair will break the tie.

VI. DUES

- A. Chartering Fee: A (one time) chartering fee in the amount of \$10.00 will be paid by each new member as a condition of membership, to cover costs of incorporation.
- B. Annual Dues: Annual dues are hereby established at \$10.00 per year, payable by active members only.
- C. Non-payment of annual dues within the time period established below shall automatically convert membership to <u>inactive</u> (II-I).
- D. Dues shall be payable by check or money order within the first quarter of each fiscal year, beginning fiscal year 1990.

E. In the event of dissolution of this association, the net assets thereof shall be distributed evenly among the active membership of record at the time of dissolution, conformance with applicable state laws of the state in which NARPM is incorporated, and with IRS regulation section 1.501(c)(3)-1(b)4 for the dissolution and distribution of such assets.

VII. USE OF ASSOCIATION ASSETS

Dishursal or disposal of assets of this association shall be limited to the necessary costs of attainment of the purposes detailed in the charter, and to the ability of the association to pay, except as provided in VI-E, above.

VIII. AUTHORIZATION OF THESE BYLAWS

These Interim bylaws are appended to the NARPM Charter, and authorized by the chartering members by signatures affixed to the charter and by roll call vote of the eleven assembled authorized regional representatives, on this 22nd day of June, 1989 in Atlanta, Georgia, as attested by their signatures below.

REGION	REPRESENTATIVE SIGNATURE	REPRESENTATIVE PRINTED NAME
I		
II		
III		
IA	for K Bank	Jon K Bornholm
٧	Ken Tindall	KenTindall
VI		
IIV	Spell Horac	Steve A. Kovac
IIIV	Marie B. Bonnick	HARE B. ZANOWICK
IX		
X	David A Titto	DOUIS A TETTA

SITE ASSESSMENT ASSOCIATION REGIONAL CONTACT LIST

Region 1

Jane Anderson USEPA J.F. Kennedy Fed. Bld Mail Code: Hss-can-7 Boston, MS 02203

FTS 833-1698

Region 2

Ben Conetta USEPA 26 Federal Plaza Mail Code: RM 13-100 New York, NY 10278

FTS 264-6696

Region 3

Lorie Acker USEPA 841 Chestnut Buldg. Mail Code: 3HW13 Philadelphia, PA 19107

FTS 597-3165

Region 4

Debbie Vaughn-Wright USEPA 345 Courtland Street Mail Code: Atlanta, Ga. 30365

FTS 347-5065

Region 5

Linda Martin USEPA 230 S Dearborn Mail Code: 5HS TUB 7 Chicago, Il 60604

FTS 353-9486

Region 6

Barbara Driscoll USEPA 1445 Ross Avenue Mail Code: 6H MA Dallas, TX 75202 Ed Sierra USEPA FTS 255-6491

FTS

Region 7

Peter Culver USEPA 726 Minnesota Ave Mail Code: Kansas City, KS 66101

FTS 276-7707

Region 8

Pat Smith USEPA 999 18th street, Suite 500 Mail Code: 8HWM-SM Denver, CO 80802

FTS 330-1262

Region 9

Carolyn Douglas USEPA 75 Hawthorne Mail Code: San Francisco, CA 94105

FTS 744-2343

Region 10

Deborah Flood USEPA 1200 Sixth Ave Mail Code: HW-093 Seattle, WA 98101

FTS 399-2722

Headquarter

Tina Maragousis USEPA Mail Code: OS 230 401 M Street S.W. Washington, D.C. 20460

FTS 382-7393

sw Station 0,0

MAG FIELD DATA SHEET

STA	TION	1		1		
Х	Y	Reading	Reading	Reading	Average (gammas)	Comments
0	0	52690				
0		52453				
0	\sim	52569				
()		53765				
		52540				
		52727				
0 6		53146				
0 7	7	2736				
		2447				
09	4	2575				
		3123				
	_	2195				
	30	2396				
10		7625				
12		7716				
3		7616				
4	- 30	2614				
5		772				
6		899				
7		277				
8	+ 53					
9		2 49				
10	>1 /	793				
111						

-	Field data sheet is an extension of Geophysical Logbook	
	ation	

MAG FIELD DATA SHEET

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*	Field data sheet is an extension of Geophysical Logbook	
Lo	cation	



1927 LAKESIDE PARKWAY SUITE 614 TUCKER, GEORGIA 30084 404-938-7710



JUN 0 2 1989 SISB/SAS

C-586-5-9-202

May 31, 1989

Mr. Ken Lucas Site Investigation and Support Branch Waste Management Division Environmental Protection Agency 345 Courtland Street, N. E. Atlanta, Georgia 30365

Subject:

Westinghouse Electric Corporation Athens, Clarke County, Georgia

TDD No. F4-8903-40

Dear Mr. Lucas:

Previous to the Screening Site Inspection field activities, an onsite reconnaissance was performed at the Westinghouse Electric Corporation landfill. Boundaries of the landfill were identified during the reconnaissance. However, the exact locations of subsurface waste materials were still unknown. Since subsurface soil sampling was scheduled to be conducted at the landfill during the Screening Site Inspection, we wanted to outline accurately waste materials via a geophysical screening. The reason being that site history indicated the presence of buried drums, and we did not intend to auger into the unknown. Exact sampling locations would be determined after delineating subsurface disposal areas.

If you have further questions regarding rationale for the geophysical screening study at Westinghouse, please call me at NUS Corporation.

Very truly yours,

Rebecca Haffmann
Project Manager

RH/kw

Approved:

reg Schank

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV COLLEGE STATION RD. ATHENS, GA. 30613

*****MEMORANDUM*****

DATE: 05/31/89

Results of Purgeable Organic Analysis; 89-400 WESTINGHOUSE ELECT. SUBJECT:

ATHENS

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

PURGEABLE ORGANICS DATA REPORT	EFA-REGION IV ESD, ATHENS, GA.	05/30/89
** PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE ** SOURCE: WESTINGHOUSE ELECT. ** STATION ID: SB-02 SUBSURFACE SOIL #2 **	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1005 STOP: 00/00/00	* * * * * *
*** * * * * * * * * * * * * * * * * *	T * * * * * * * * * * * * * * * * * * *	* * * ***
41U CHLOROMETHANE 41U VINYL CHLORIDE 41U BROMOMETHANE 41U CHLOROETHANE 41U TRICHLOROFI UOROMETHANE 41U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE) 41OU ACEIONE 41OU CARBON DISULFIDE 41U METHYLENE CHLORIDE 41U TRANS-1,2-DICHLOROETHENE 41U 1,1-DICHLOROETHANE 41U VINYL ACETATE 41U CIS-1,2-DICHLOROETHENE 41U 2,2-DICHLOROPROPANE 41U METHYL ETHYL KETONE 41U BROMOCHLOROMETHANE 41U CHLOROFORM 41U 1,1,1-TRICHLOROETHANE 41U 1,2-DICHLOROETHANE 41U BENZENE 41U TRICHLOROPROPANE 41U BENZENE 41U JBROMOMETHANE 41U DIBROMOMETHANE	41U CIS-1,3-DICHLOROPROPENE 410U METHYL ISOBUTYL KETONE 41U TOLUENE 41U TOLUENE 41U TRANS-1,3-DICHLOROPROPENE 41U 1,1,2-TRICHLOROETHANE 41U 1,3-DICHLOROPROPANE 41U 1,3-DICHLOROPROPANE 41U MÉTHYL BUTYL KETONE 41U CHLOROBENZENE 41U 1,1,1,2-TETRACHLOROETHANE 41U ETHYL BENZENE 41U (M- AND/OR P-)XYLENE 41U O-XYLENE 41U STYRENE 41U BROMOFORM 41U BROMOFORM 41U BROMOFORM 41U BROMOFORM 41U JROMOBENZENE 41U 1,2,3-TRICHLOROPROPANE 41U 1,2,3-TRICHLOROPROPANE 41U 1,3-DICHLOROBENZENE 41U 1,3-DICHLOROBENZENE 41U 1,3-DICHLOROBENZENE 41U 1,2-DICHLOROBENZENE 41U 1,2-DICHLOROBENZENE 41U 1,2-DICHLOROBENZENE 41U 1,2-DICHLOROBENZENE 41U 1,2-DICHLOROBENZENE 41U 1,2-DICHLOROBENZENE	

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

PURGEABLE ORGANICS DATA REPORT	EPA-REGION IV ESD, ATHENS, GA.	05/30/89
*** * * * * * * * * * * * * * * * * *	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1020 STOP: 00/00/00	* * * * *** ** ** **
*** * * * * * * * * * * * * * * * * *	UG/KG ANALYTICAL RESULTS	* * * * ***
41U CHLOROMETHANE 41U VINYL CHLORIDE 41U BROMOMETHANE 41U CHLORGETHANE 41U TRICHLOROFI.UOROMETHANE 41U 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE) 41OU ACETONE 41OU CARBON DISULFIDE 41U METHYLENE CHLORIDE 41U TRANS-1,2-DICHLOROETHENE 41U 1,1-DICHLOROETHANE 41U 1,1-DICHLOROETHANE 41U CIS-1,2-DICHLOROETHENE 41U CIS-1,2-DICHLOROETHENE 41U CIS-1,2-DICHLOROETHENE 41U CIS-1,2-DICHLOROETHENE 41U BROMOCHLOROMETHANE 41U BROMOCHLOROMETHANE 41U CARBON TETRACHLORIDE 41U 1,1-TRICHLOROETHANE 41U 1,2-DICHLOROETHANE 41U TRICHLOROETHANE 41U BENZENE 41U TRICHLOROETHANE 41U DIBROMOMETHANE	410	

REMARKS

^{***}FOOTNOTES***

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

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	ORGANICS DATA REPORT		•	20, 00, 00
** PROJ	DECT NO. 89-400 SAMPLE NO. 34901 SAMPLE RCE: WESTINGHOUSE ELECT.	TYPE: SOIL PROG ELEM:	NSF COLLECTED BY: R YOUNG	** ** ** ** **
*** UG/K	ANALYTICAL RESULTS	* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *	. * * * * * * * *
160U 160U 160U 160U 160OU 160OU 160OU 160OU 160OU 160OU 160OU 160OU 160OU 160OU 160OU 160OU 160OU 160OU 160OU	CHLOROMETHANE VINYL CHLORIDE BROMOMETHANE CHLOROFILUOROMETHANE TRICHLOROFILUOROMETHANE 1,1-DICHLOROFILUOROMETHANE 1,1-DICHLOROFILUOROMETHANE 1,1-DICHLOROFILUOROMETHANE 1,1-DICHLOROFILUOROMETHENE METHYLENE CHLORIDE TRANS-1,2-DICHLOROFIHENE 1,1-DICHLOROFIHANE VINYL ACETATE CIS-1,2-DICHLOROFIHENE 2,2-DICHLOROFIHANE WINYL ACETATE CIS-1,2-DICHLOROFIHANE 1,1-TRICHLOROFIHANE METHYL ETHYL KETONE BROMOCHLOROMETHANE CHLOROFORM 1,1,1-TRICHLOROFIHANE 1,1-DICHLOROPPOPENE CARBON TETRACHLORIDE 1,2-DICHLOROFTHANE 1,2-DICHLOROFIHANE BENZENE TRICHLOROFTHANE BENZENE TRICHLOROFTHANE BENZENE TRICHLOROFTHANE BENZENE TRICHLOROFTHANE BROMOMETHANE BROMOMETHANE BROMOMETHANE BROMOMETHANE BROMOMETHANE	1600 1,2 1600 0-Ci 1600 P-Ci 1600 1,3- 1600 1,2-	1,3-DICHLOROPROPENE HYL ISOBUTYL KETONE JENE JENE JENE JENE JS-1,3-DICHLOROPROPENE 2-TRICHLOROETHANE RACHLOROETHENE(TETRACHLOROETHYLENE) -DICHLOROPROPANE HYL BUTYL KETONE ROMOCHLOROMETHANE DROBENZENE 1,2-TETRACHLOROETHANE //L BENZENE AND/OR P-)XYLENE //LENE RENE MOFORM MOBENZENE 2,2-TETRACHLOROETHANE 1,3-TRICHLOROPROPANE HLOROTOLUENE HLOROTOLUENE -DICHLOROBENZENE -DICHLOROBENZENE -DICHLOROBENZENE -DICHLOROBENZENE -DICHLOROBENZENE -DICHLOROBENZENE -CENT MOISTURE	

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/30/89

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT *** PROG FLEM: NSF COLLECTED BY: R YOUNG PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL ** SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA * * ** STATION ID: SS-03 SURFACE SOIL #03 COLLECTION START: 05/04/89 1035 STOP: 00/00/00 ** ** **

ANALYTICAL RESULTS UG/KG

200JN TRIMEIHYLBENZENE N PETROLEUM PRODUCT

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV COLLEGE STATION RD. ATHENS, GA. 30613

*****MEMORANDUM*****

DATE: 06/09/89

SUBJECT: Results of Extractable Organic Analysis; 89-400 WESTINGHOUSE ELECT.

ATHENS

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

EXTRACTABLE ORGANICS DATA REPORT	EFA-REGION IV ESD, ATHENS, GA.	(10/08/69
*** * * * * * * * * * * * * * * * * *	E TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS S1: GA COLLECTION START: 05/04/89 1005 STOP: 00/00/00	
UG/KG ANALYTICAL RESULTS	* * * * * * * * * * * * * * * * * * *	* * * * ***
1700U BIS(2-CHLOROCTHYL) ETHER 1700U BIS(2-CHLOROISOPROPYL) ETHER 1700U N-NITROSODI-N-PROPYLAMINE 1700U HEXACHLOROETHANE 1700U SOPHORONE 1700U BIS(2-CHLOROETHOXY) METHANE 1700U ISOPHORONE 1700U A-CHLOROETHOXY) METHANE 1700U A-CHLOROMILINE 1700U A-CHLOROMILINE 1700U HEXACHLOROBUTADIENE 1700U HEXACHLOROCYCLOPENTADIENE (HCCP) 1700U 2-METHYLNAPHTHALENE 1700U 2-CHLOROMAPHTHALENE 1700U 2-CHLOROMAPHTHALENE 1700U 2-NITROANILINE 1700U ACENAPHTHYLENE 1700U ACENAPHTHYLENE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U 12-CHLOROMAPHTHALENE 1700U 12-CHLOROMAPHTHALENE 1700U 2-CHLOROMAPHTHALENE 1700U 4-CHLOROMAPHTHALENE 1700U 4-CHLOROMAPHTHALENE 1700U 4-DINITROTOLUENE 1700U 15EHYL PHTHALATE 1700U DIBENZOFURAN 1700U 2-DINITROTOLUENE 1700U 4-CHLOROPHENYL PHENYL ETHER 1700U 4-NITROANILINE 1700U 4-NITROSODIPHENYLAMINE/DIPHENYLAMINE 1700U 4-BROMOPHENYL PHENYL E THER 1700U HEXACHLOROBENZENE (HCB) 1700U ANTHRACENE 1700U DI-N-BUTYLPHTHALATE	1700U FLUORANTHENE 1700U PYRFNE 1700U BENZYL BUTYL PHTHALATE 1700U BENZO(A)ANTHRACENE 1700U CHRYSENE 1700U DI-N-OCTYLPHTHALATE 1700U DI-N-OCTYLPHTHALATE 1700U DI-N-OCTYLPHTHALATE 1700U BENZO(B AND/OR K)FLUORANTHENE 1700U INDENO (1,2,3-CD) PYRENE 1700U DIBENZO(A,H)ANTHRACENE 1700U DIBENZO(A,H)ANTHRACENE 1700U DIBENZO(A,H)ANTHRACENE 1700U PHENOL 1700U 2-CHLOROPHENOL 1700U 2-CHLOROPHENOL 1700U (3-AND/OR 4-)METHYLPHENOL 1700U (3-AND/OR 4-)METHYLPHENOL 1700U 2,4-DITMETHYLPHENOL 1700U 2,4-DITMETHYLPHENOL 1700U 2,4-FIRICHLOROPHENOL 1700U 2,3-4-FIRICHLOROPHENOL 1700U 2,4-FIRICHLOROPHENOL 1700U 2,4-FIRICHLOROPHENOL 1700U 2,4-FIRICHLOROPHENOL 1700U 2,4-FIRICHLOROPHENOL 1700U 2,3-4-FIRICHLOROPHENOL 1700U 2-METHYL-4-6-FINITROPHENOL	

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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REMARKS

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EXTRACTABLE ORGANICS DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SI: GA STATION ID: SS-03 SURFACE SOIL #03 COLLECTION START: 05/04/89 1035 STOP: 00/00/00
UG/KG ANALYTICAL RESULTS
                                                                                         UG/KG ANALYTICAL RESULTS
  20000U BIS(2 CHLOROETHYL) ETHER
20000U BIS(2-CHLOROISOPROPYL) ETHER
                                                                                         20000U FLUORANTHENE
                                                                                         20000U PYRENE
  20000U N-NITROSODI-N-PROPYLAMINE
                                                                                         20000U BENZYL BUTYL PHTHALATE
20000U 3,3'-DICHLOROBENZIDINE
   20000U NITROBENZENE
                                                                                         20000U BENZO(A)ANTHRACENE
  20000U ISOPHORONE
20000U BIS(2-CHLOROETHOXY) METHANE
20000U 1,2,4-TRICHLOROBENZENE
                                                                                          200000
                                                                                                    CHRYSENE
                                                                                         20000U BIS(2-ETHYLHEXYL) PHTHALATE
20000U DI-N-OCTYLPHTHALATE
20000U BENZO(B AND/OR K)FLUORANTHENE
   20000U NAPHTHALENE
   20000U 4-CHLOROANILINE
                                                                                         20000U BENZO-A-PYRENE
                                                                                         20000U INDENO (1,2,3-CD) PYRENE
20000U DIBENZO(A,H)ANTHRACENE
BENZO(GHI)PERYLENE
   20000U HEXACHLOROBUTADIENE
  20000U 2-METHYLNAPHTHALENE
20000U HEXACHLOROCYCLOPENTADIENE (HCCP)
20000U 2-CHLORONAPHTHALENE
20000U 2-NITROANILINE
                                                                                         200000
                                                                                                    PHENOL
                                                                                         200000
                                                                                                    2-CHLOROPHENOL
   20000U DIMETHYL PHTHALATE
20000U ACENAPHTHYLENE
                                                                                         40000U BENZYL ALCOHOL
20000U 2-METHYLPHENOL
   20000U 2,6-DINITROTOLUENE
20000U 3-NITROANILINE
                                                                                          200000
                                                                                                    (3-AND/OR 4-)METHYLPHENOL
                                                                                          20000U 2-NITROPHENOL
                                                                                        20000U 2-NITROPHENOL
2600GU 2,4-DIME HYLPHENOL
4000U BENZOIC ACID
2000OU 2,4-DICHLOROPHENOL
2000OU 2,4-6-TRICHLOROPHENOL
2000OU 2,4-6-TRICHLOROPHENOL
4000OU 2,4-DINITROPHENOL
4000OU 4-NITROPHENOL
2000OU 2,3,4,6-TETRACHLOROPHENOL
4000OU 2,3,4,6-TETRACHLOROPHENOL
4000OU PENTACHLOROPHENOL
33 PERCENT MOISTURE
   20000U ACENAPHTHENE
   20000U DIBENZOFURAN
             2,4-DINITROTOLUENE
   200000
   20000U DIETHYL_PHTHALATE
   20000U FLUORENE
   20000U 4-CHLOROPHENYL PHENYL ETHER
  20000U 4-NITROANILINE
20000U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
20000U 4-BROMOPHENYL PHENYL EIHER
20000U HEXACHLOROBENZENE (HCB)
   20000U PHENANTHRENE
   20000U ANTHRACENE
                                                                                               33 PERCENT MOISTURE
   20000U DI-N-BUTYLPHTHALATE
```

REMARKS

FOOTNOTES

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EXTRACTABLE ORGANICS DATA REPORT	ETA NEGION IV EDD, ATTENDA GA.	00/00/03
** PROJECT NO. 89-400 SAMPLE NO. 34902 ** SOURCE: WESTINGHOUSE ELECT. ** STATION ID: SS-04 SURFACE SOTI #04	SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1120 STOP: 00/00/00	**
UG/KG ANALYTICAL RESULTS	THE TOTAL RESULTS	* * * ***
BSOCOU BIS(2 CHLOROETHYL) ETHER 88000U BIS(2-CHLOROISOPROPYL) ETHER 88000U N-NITROSODI-N-PROPYLAMINF 88000U HEXACHLOROETHANE 88000U ISOPHORONE 88000U BIS(2-CHLOROETHANE 88000U JSOPHORONE 88000U BIS(2-CHLOROETHOXY) METHANE 88000U JSOPHORONE 88000U HEXACHLOROBENZENE 88000U 4-CHLOROANILINE 88000U HEXACHLOROBUTADIENE 240000 2-METHYLNAPHTHALENE 88000U HEXACHLOROCYCLOPENTADIENE (HCCP) 88000U 2-CHLORONAPHTHALENE 88000U 2-NITROANILINE 88000U 2-NITROANILINE 88000U ACENAPHTHYLENE 88000U 3-NITROANILINE 88000U 3-NITROANILINE 88000U 3-NITROANILINE 88000U 2,6-DINITROTOLUENE 88000U 2,4-DINITROTOLUENE 88000U 2,4-DINITROTOLUENE 88000U 2,4-DINITROTOLUENE 88000U 4-CHLOROPHENYL PHENYL ETHER 88000U 4-CHLOROPHENYL PHENYL ETHER 88000U 4-DITROANILINE 88000U 4-DITROANILINE 88000U 4-DITROANILINE 88000U 4-DROPHENYL PHENYL ETHER 88000U 4-DROMOPHENYL PHENYL ETHER 88000U 4-BROMOPHENYL PHENYL ETHER 88000U HEXACHLOROBENZENE (HCB) 13000.I PHENANTHRENE 88000U ANTHRACENE 88000U DI-N-BUTYLPHTHALATE	SECOUL S	

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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EXTRACTABLE ORGANICS DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG **

** SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS SI: GA **

** STATION ID: SB-03 SUBSURFACE SOIL #03
                                                                                                                                                        * *
UG/KG ANALYTICAL RESULTS
                                                                                 UG/KG ANALYTICAL RESULTS
   1700U BIS(2 CHLOROETHYL) ETHER
1700U BIS(2-CHLOROISOPROPYL) ETHER
                                                                                 1700U FLUORANTHENE
                                                                                 1700U PYRENE
   1700U N-NITROSODI-N-PROPYI AMINE
1700U HEXACHLOROETHANE
                                                                                 1700U BENZYL BUTYL PHTHALATE
                                                                                         3.3'-DICHLOROBENZIDINE
                                                                                 17000
    1700U NITROBENZENE
                                                                                 1700U BENZO(A)ANTHRACENE
                                                                                         CHRYSENE
BIS(2-ETHYLHEXYL) PHTHALATE
    1700U ISOPHORONE
                                                                                 1 7000
    17000 BIS(2-CHLOROETHOXY) METHANE
                                                                                 17000
   1700U 1,2,4-TRICHLOROBENZENE
1700U NAPHTHALENE
                                                                                         DI-N-OCTYLPHTHALATE
BENZO(B AND/OR K)FLUORANTHENE
                                                                                 17000
                                                                                 17000
    1700U 4-CHLOROANILINE
                                                                                 1 700U
                                                                                          BENZO-A-PYRENE
                                                                                         INDENO (1,2,3-CD) PYRENE
DIBENZO(A,H)ANTHRACENE
    1700U HEXACHLOROBUTADIENE
                                                                                 1700U
    1700U 2-METHYLNAPHTHALENE
                                                                                 1 700U
            HEXACHLOROCYCLOPENTADIENE (HCCP)
    1 700U
                                                                                  1 700U
                                                                                          BENZO(GHI)PERYLENE
    17000
            2-CHLORONAPHTHALENE
                                                                                  1700U
                                                                                          PHENOL
            2-NITROANILINE
                                                                                  17000
                                                                                          2-CHLOROPHENOL
    1 700U
                                                                                         BENZYL ALCOHOL
2-METHYLPHENOL
    1700U DIMETHYL PHTHALATE
                                                                                  33000
    1700U ACENAPHTHYLENE
                                                                                  1 700U
    1700U
           2,6-DINITROTOLUENE
                                                                                  1 700U
                                                                                          (3-AND/OR 4-)METHYLPHENOL
            3-NITROANILINE
ACENAPHTHENE
    1 7000
                                                                                          2-NITROPHENOL
                                                                                  1 700U
                                                                                 1700U 2.4-DIMETHYLPHENOL
3300U BENZOIC ACID
1700U 2.4-DICHLOROPHENOL
    1.7000
            DIBENZOFURAN
    1 700U
    17000
            2,4-DINITROTOLUENE
                                                                                 1700U 4-CHLORO-3-METHYLPHENOL
1700U 2,4,6-TRICHLOROPHENOL
1700U 2,4,5-TRICHLOROPHENOL
    1 700U
            DIETHYL PHTHALATE
    17000
            FLUORENE
            4-CHLOROPHENYL PHENYL ETHER
    1 700U
                                                                                 3300U 2,4-DINITROPHENOL
3300U 4-NITROPHENOL
1700U 2,3,4,6-TETRACHLOROPHENOL
3300U 2-METHYL-4,6-DINITROPHENOL
    1 7000
1 7000
            4-NITROANILINE
N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
            4-BROMOPHENYL PHENYL ETHER
    17000
    1700U HEXACHLOROBENZENE (HCB)
1700U PHENANTHRENE
                                                                                 3300U PENTACHLOROPHENOI
19 PERCENT MOISTURE
            ANTHRACENE
    1 700U
    1700U DI-N-BUTYLPHTHALATE
```

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

EXTRACTABLE ORGANICS DATA REPORT	EPA-REGION IV ESD, ATHENS, GA.	06/05/69
** PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE ** SOURCE: WESTINGHOUSE ELECT. ** STATION ID: SS-01 BACKGROUND SURFACE SOIL	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1530 STOP: 00/00/00	** ** **
	* * * * * * * * * * * * * * * * * * *	* * * ***
1700U BIS(2 CHLOROETHYL) ETHER 1700U BIS(2-CHLOROISOPROPYL) ETHER 1700U N-NITROSODI-N-PROPYLAMINE 1700U HEXACHLOROETHANE 1700U SOPHORONE 1700U BIS(2-CHLOROETHOXY) METHANE 1700U BIS(2-CHLOROETHOXY) METHANE 1700U ASSEMBLY AND SET OF THE SET OF	1700U FLUORANTHENE 1700U PYRENE 1700U BENZYL BUTYL PHTHALATE 1700U BENZO(A)ANTHRACENE 1700U BENZO(A)ANTHRACENE 1700U BENZO(B) AND/OR K)FLUORANTHENE 1700U BENZO(B) AND/OR K)FLUORANTHENE 1700U BENZO(B) AND/OR K)FLUORANTHENE 1700U INDEMO (1,2,3-GD) PYRENE 1700U DIBENZO(A, H)ANTHRACENE 1700U DIBENZO(A, H)ANTHRACENE 1700U DIBENZO(A, H)ANTHRACENE 1700U PHENOL 1700U 2-CHLOROPHENOL 1700U 2-METTHYLPHENOL 1700U 2-METTHYLPHENOL 1700U 2,4-DIME HYLPHENOL 1700U 2,4-DIME HYLPHENOL 1700U 2,4-FICHOROPHENOL 1700U 2,3-4,6-TETRACHLOROPHENOL 1700U 2,3-4,6-TETRACHLOROPHENOL 1700U 2-METTHYL-4,6-DINITROPHENOL 1700U 2-METHYL-4,6-DINITROPHENOL	

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

	EFA-REGION IV ESD, ATTENS, GA.	06/06/69
*** * * * * * * * * * * * * * * * * *	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1550 STOP: 00	/00/00 **
UG/KG ANALYTICAL RESULTS	UG/KG ANALYTICAL RESULTS	* * * * * * * * * * * * * * * * * * * *
UG/KG ANALYTICAL RESULTS 1700U BIS(2 CHLOROETHYL) ETHER 1700U N-NITROSODI-N-PROPYL AMINF 1700U HEXACHLOROETHANE 1700U NITROBENZENE 1700U ISOPHORONE 1700U BIS(2-CHLOROETHOXY) METHANE 1700U BIS(2-CHLOROETHOXY) METHANE 1700U A-CHLOROBENZENE 1700U NAPHTHALENE 1700U HEXACHLOROBUTADIENE 1700U HEXACHLOROBUTADIENE 1700U 2-METHYLNAPHTHALENE 1700U 2-METHYLNAPHTHALENE 1700U 2-CHLORONAPHTHALENE 1700U 2-CHLORONAPHTHALENE 1700U 2-NITROANILINE 1700U DIMETHYL PHTHALATE 1700U ACENAPHTHENE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U ACENAPHTHENF 1700U DIBENZOFURAN 1700U 2,4-DINITROTOLUENE 1700U GLENAPHTHENF 1700U FLUORENE 1700U 4-CHLOROPHENYL PHENYL ETHER 1700U 4-NITROSODIPHENYL AMINE/DIPHENYLAMINE 1700U 4-BROMOPHENYL PHENYL ETHER 1700U HEXACHLOROBENZENE (HCB) 1700U ANTHRACENE 1700U ANTHRACENE	1700U FLUORANTHENE 1700U PYRFNE 1700U BENZYL BUTYL PHTHALATE 1700U BENZYL BUTYL PHTHALATE 1700U BENZO(A)ANTHRACENF 1700U CHRYSENE 1700U CHRYSENE 1700U DI-N-OCTYLPHTHALATE 1700U BENZO(B AND/OR K)FLUORANTHENE 1700U BENZO(B AND/OR K)FLUORANTHENE 1700U INDENO (1,2,3-CD) PYRENE 1700U DIBENZO(A,H)ANTHRACENE 1700U BENZO(GHI)PERYLENE 1700U BENZO(GHI)PERYLENE 1700U BENZO(GHI)PERYLENE 1700U 2-CHLOROPHENOL 1700U 2-METHYLPHENOL 1700U 2-MITROPHENOL 1700U 2-MITROPHENOL 1700U 2,4-DIME HYLPHENOL 1700U 2,4-DIME HYLPHENOL 1700U 2,4-DICHLOROPHENOL 1700U 2,4-FIRICHLOROPHENOL 1700U 2,3-4-G-TETRACHLOROPHENOL 1700U 2,3-4-G-TETRACHLOROPHENOL 1700U 2-METHYL-4-G-DINITROPHENOL 3300U 2-METHYL-4-G-DINITROPHENOL	

REMARKS

^{*}A-AVERAGE *NUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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EXTRACTABLE ORGANICS DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG ST: GA

** SOURCE: WESTINGHOUSE ELECT.

** STATION ID: SD-01 BACKGROUND SEDIMENT SOIL COLLECTION START: 05/03/89 1630 STOP: 00/00/00
UG/KG ANALYTICAL RESULTS
                                                                                    UG/KG ANALYTICAL RESULTS
  2000UJ BIS(2 CHLOROETHYL) FTHER
2000UJ BIS(2-CHLOROISOPROPYL) ETHER
2000UJ N-NITROSODI-N-PROPYLAMINE
HEXACHLOROETHANE
                                                                                   2000UJ FLUORANTHENE
                                                                                    2000UJ PYRENE
                                                                                   2000UJ BENZYL BUTYL PHTHALATE
2000UJ 3,31-DICHLOROBENZIDINE
   2000UJ NITROBENZENE
2000UJ ISOPHORONE
                                                                                    2000UJ BÉNZO(A)ANTHRACENE
                                                                                             CHRYSENE
BIS(2-ETHYLHEXYL) PHTHALATE
                                                                                    200001
   2000UJ BIS(2-CHLOROETHOXY) METHANE
2000UJ 1,2,4-TRICHLOROBENZENE
                                                                                    200000
                                                                                   2000UJ DI-N-OCTYLPHTHALATE
2000UJ BENZO(B AND/OR K)FLUORANTHENE
   2000UJ NAPHTHALENE
   2000UJ 4-CHLOROANILINE
                                                                                    2000UJ
                                                                                             BENZO-A-PYRENE
                                                                                    2000UJ INDENO (1,2,3-CD) PYRENE
2000UJ DIBENZO(A,H)ANTHRACENE
   2000UJ HEXACHLOROBUTADIENE
   2000UJ 2-METHYLNAPHTHALENE
2000UJ HEXACHLOROCYCLOPENTADIENE (HCCP)
                                                                                             BENZO(GHI)PERYLENE
PHENOL
                                                                                    2000UJ
  2000UJ HEXACHLOROCYCLOPENTA
2000UJ 2-CHLORONAPHTHALENE
2000UJ 2-NITROANILINE
2000UJ ACENAPHTHYLENE
2000UJ 2,6-DINITROTOLUENE
2000UJ 3-NITROANILINE
2000UJ ACENAPHTHENE
2000UJ DIBENZOEURAN
                                                                                    2000UJ
                                                                                    200000
                                                                                             2-CHLOROPHENOL
                                                                                    4000UJ BENZYL ALCOHOL
                                                                                             2-METHYLPHENOL
                                                                                    200001
                                                                                    200001
                                                                                             (3-AND/OR 4-)METHYLPHENOL
                                                                                             2-NITROPHENOL
2,4-DIMETHYLPHENOL
                                                                                    2000VJ
                                                                                    2000UJ
                                                                                    4000UJ BENZOIC ACID
2000UJ 2,4-DICHLOROPHENOL
   2000UJ DIBENZOFURAN
   2000UJ 2.4-DINITROTOLUENE
2000UJ DIETHYL PHTHALATE
                                                                                    2000UJ 4-CHLORO-3-METHYLPHENOL
                                                                                   2000UJ 2,4,6-TRICHLOROPHENOL
2000UJ 2,4,5-TRICHLOROPHENOL
4000UJ 2,4-DINITROPHENOL
   2000UJ FLUORENE
   2000UJ 4-CHLOROPHENYL PHENYL ETHER
2000UJ 4-NITROANILINE
   2000UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
                                                                                    40000J 4-NITROPHENOL
   2000UJ 4-BROMOPHENYL PHENYL LIHER
                                                                                    2000UJ 2,3,4,6-TETRACHLOROPHENOL
   2000UJ HEXACHLOROBENZENE (HCB)
                                                                                    4000UJ 2-METHYL-4,6-DINITROPHENOL
4000UJ PENTACHLORÓPHENOL
   2000UJ PHENANTHRENE
   2000UJ ANTHRACENE
                                                                                         33 PERCENT MOISTURE
            DI-N-BUTYL PHTHAL ATE
   2000UJ
```

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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EXTRACTABLE ORGANICS DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL PROGELEM: NSF COLLECTED BY: R YOUNG ST: GA

** SOURCE: WESTINGHOUSE ELECT: ST: GA

** STATION ID: SD-02 SEDIMENT SOIL #02 COLLECTION START: 05/03/89 1815 STOP: 00/00/00
* *
                                                                                                                                                      **
UG/KG ANALYTICAL RESULTS
                                                                                UG/KG ANALYTICAL RESULTS
   2500U BIS(2 CHLOROETHYL) ETHER
2500U BIS(2-CHLOROISOPROPYL) ETHER
                                                                                 2500U FLUORANTHENE
                                                                                 2500U PYRENE
    2500U N-NITROSODI-N-PROPYLAMINE
2500U HEXACHLOROETHANE
                                                                                 2500U BENZYL BUTYL PHTHALATE
                                                                                 2500U 3,3'-DICHLOROBENZIDINE
   2500U NITROBENZENE
2500U ISOPHORONE
2500U BIS(2-CHLOROETHOXY) METHANE
2500U 1,2,4-TRICHLOROBENZENE
                                                                                 2500U BENZO(A) ANTHRACENE
                                                                                 2500U
                                                                                        CHRYSENE
                                                                                        BIS(2-ETHYLHEXYL) PHTHALATE
DI-N-OCTYLPHTHALATE
BENZO(B AND/OR K)FLUORANTHENE
                                                                                 2500U
                                                                                 2500Ú
    25000 NAPHTHALENE
                                                                                 2500υ
                                                                                 2500U
2500U
    2500U 4-CHLOROANILINE
                                                                                        BENZO-A-PYRENE
                                                                                        INDENO (1,2,3-CD) PYRENE
DIBENZO(A,H)ANTHRACENE
    2500U HEXACHLOROBUTADIENE
    2500U 2-METHYLNAPHTHALENE
2500U HEXACHLOROCYCLOPENTADIENE (HCCP)
2500U 2-CHLORONAPHTHALENE
                                                                                 2500U
                                                                                25000
25000
25000
                                                                                         BENZO(GHI)PÉRYLENE
                                                                                        PHENOL
                                                                                        2-CHLOROPHENOL
BENZYL ALCOHOL
    2500U 2-NITROANILINE
    2500U DIMETHYL PHTHALATE
2500U ACENAPHTHYLENE
                                                                                 5000U
                                                                                        2-METHYLPHENOL
                                                                                 2500U
2500U
    2500U 2,6-DINITROTOLUENE
2500U 3-NITROANILINE
                                                                                         (3-AND/OR 4-) METHYLPHENOL
                                                                                 2500U
                                                                                        2-NITROPHENOL
                                                                                 2500Ŭ
    2500U ACENAPHTHENE
                                                                                         2.4-DIMETHYLPHENOL
    2500U DIBENZOFURAN
                                                                                         BENZOIC ACID
                                                                                 50000
                                                                                25000
25000
25000
25000
    2500U 2,4-DINITROTOLUENE
                                                                                        2,4-DICHLOROPHENOL
    2500U DIETHYL PHTHALATE
2500U FLUORENE
                                                                                         4-CHLORO-3-METHYLPHENOL
                                                                                25000 4-CHLOND-3-WE THYLPHIAM
25000 2,4,6-TRICHLOROPHENOL
25000 2,4-DINITROPHENOL
50000 4-NITROPHENOL
    2500U 4-CHLOROPHENYL PHENYL ETHER
    2500U 4-NITROANILINE
2500U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
    2500U 4-BROMOPHENYL PHENYL ETHER
                                                                                        2,3,4,6-TETRACHLOROPHENOL
                                                                                 2500U
    2500U HEXACHLOROBENZENE (HCB)
2500U PHENANTHRENE
                                                                                 5000U 2-METHYL-4,6-DINITROPHENOL
                                                                                 5000U PENTACHLOROPHENOL
    2500U ANTHRACENE
                                                                                    48 PERCENT MOISTURE
    2500U DI-N-BUTYLPHTHALATE
```

REMARKS

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROJECT NO 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG * * SOURCE: WESTINGHOUSE ELECT. * * CITY: ATHENS ST: GA * * ** STATION ID: SS-02 SURFACE SOIL #02 COLLECTION START: 05/04/89 1020 STOP: 00/00/00 * * * * **

ANALYTICAL RESULTS UG/KG

2000JN (DIMETHYLBUTENYLIDENE) BISBENZENE 2000JN METHYLPHENANTHRENE 6000JN CYCLOPENTAPHENANTHRENE 3000JN PHENYL NAPHTHAL FINE BIS(BUTADIYNEDIYL)BENZENE BENZONAPHTHOFURAN (3 ISOMERS) PHENANTHRENECARBONITRILE 2000JN 9000JN 3000JN 20000JN METHYLFLUORANTHENE (4 ISOMERS) BENZOFLUORENE 8000JN BENZONAPHTHOTHIOPHENE 7000JN BENZOFLUORANTHÈNE (NOT B OR K) (2 ISOMERS)
2 UNIDENTIFIED COMPOUNDS 40000JN 200000J 2000JN BENZOPHENANTHRENONE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

^{*}K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT
* * ***
  PROJECT NO. 89-400
             SAMPLE NO. 34901 SAMPLE TYPE: SOIL
                                     PROG ELEM: NSF COLLECTED BY: R YOUNG
                                                                     **
**
  SOURCE: WESTINGHOUSE ELECT
                                     CITY: ATHENS
                                                    ST: GA
                                                                     **
* *
  STATION ID: SS-03 SURFACE SOIL #03
                                     COLLECTION START: 05/04/89 1035 STOP: 00/00/00
                                                                     **
                                                                     * *
```

ANALYTICAL RESULTS UG/KG

```
5000JN
            ME THYLPROPYLBENZENE
  9000JN
            DIETHYLMETHYLBENZENE (2 ISOMERS)
            (DIMETHYLPROPYL)BENZENE
  6000JN
 10000JN
            DIMETHYL (METHYL FTHYL)BENZENE (2 ISOMERS)
            ETHYLTRIMETHYLBENZENE
  4000JN
  6000JN
            HEXANOIC ACID
  3000JN
            COPAENE
           HEPTADECANOL (2 ISOMERS)
TETRADECANOIC ACID
 40000JN
200000JN
 40000JN
            PENTADECANOIC ACID
            TETRADECANAL
HEXADECANOIC ACID
 40000JN
   2E6JN
2E6J
100000JN
            11 UNIDENTIFIED COMPOUNDS
            HEPTADECANOIC ACID
            OCTADECANOIC ACID
700000JN
            PETROLEUM PRODUCT
 40000JN
            ETHYLDIMETHYLBENZENE (5 ISOMERS)
```

FOOTNOTES

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

4 #

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PROJECT NO. 89-400
                       SAMPLE NO. 34902 SAMPLE TYPE: SOIL
                                                              PROG ELEM: NSF COLLECTED BY: R YOUNG
* *
    SOURCE: WESTINGHOUSE ELECT.
                                                                                      ST: GA
                                                              CITY: ATHENS
    STATION ID: SS-04 SURFACE SOIL #04
                                                              COLLECTION START: 05/04/89 1120 STOP: 00/00/00
ANALYTICAL RESULTS UG/KG
                      10000JN
                               PROPYLCYCLOHEXANE
                      30000JN
                               PROPYLBENZENE
                     200000JN
                               ETHYLMETHYLBENZENE (3 ISOMERS)
                     900000JN
                               TRIMETHYLBENZENE (3 ISOMERS)
                               PETROLEUM PRODUCT
                      20000JN
                               (METHYLPROPYL)BENZENE
                     200000JN
                               PROPENYLCYCLOHEXANE
                     100000JN
                               DIHYDROINDENE
                     900000JN
                               METHYLPROPYLBENZENE
                               BUTYLBENZENE
                     600000JN
                        6E6JN
                               ETHYLDIMETHYLBENZENE (7 ISOMERS)
                        1E6JN
                               (DIMETHYLPROPYL)BENZENE (6 ISOMERS)
                     100000JN
                               DIETHYLMETHYLBENZENE
                      20000JN
                               METHYLDECAHYDRONAPHTHALENE
                      30000JN
                               PENTYLCYCLOHEXANE
                               METHYLDIHYDROINDENE
                     700000JN
                       1E6JN
                               DIMETHYL (METHYL FTHYL) BENZENE (6 ISOMERS)
                       1E6JN
2E6J
                               DIETHYLBENZENE
                               10 UNIDENTIFIED COMPOUNDS
                     200000JN
                               TETRAHYDRONAPHTHALENE
                               ((METHYLBENZYL)SULFONYL]PHENOL
DIMETHYLDIHYDROINDENE (2 ISOMERS)
                     100000JN
                     200000JN
                      90000JN
                               DIMETHYL (METHYLPROPYL) BENZENE (2 ISOMERS)
                               ETHYLTRIMETHYLBENZENE
                     100000JN
                               1-METHYLNAPHTHALENE
                      60000JN
                      20000JN
                               DIMETHYLNAPHTHALENE
                               HEXAMETHYLOCTAHYDROINDENE
BIS(DIMETHYLETHYL)METHYLPHENOL
                     100000JN
                     100000JN
                               TRIMETHYLNAPATHALENE (2 ISOMERS)
                      20000JN
                      30000JN
                               METHYL (METHYLETHYL) NAPHTHALENE
                               TETRADECANOIC ACID
```

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

MC000003N 30000JN

1E5JN 4E6JN 1E6JN 2E6JN

50000JN

DIMETHYLPHENANTHRENE HEXADECENOIC ACID HEXADECANOIC ACID OCTADECANOIC ACID

FTHYL (METHYLETHYL) BENZENE

METHYLPROPYLCYCLOHEXANE (2 ISOMERS)

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. *R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

06/08/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS SOURCE: WESTINGHOUSE ELECT. STATION ID: SB-03 SUBSURFACE SOIL #03 ST: GA ** ** COLLECTION START: 05/04/89 1225 STOP: 00/00/00 ** **

ANALYTICAL RESULTS UG/KG

200JN TETRADECANOIC ACID 5000JN HEXADECANOIC ACID 700JN OCTADECANOIC ACID

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

06/08/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL ** SOURCE: WESTINGHOUSE ELECT.
STATION ID: SS-01 BACKGROUND SURFACE SOIL * * ** COLLECTION START: 05/03/89 1530 STOP: 00/00/00 * * * * * *

ANALYTICAL RESULTS UG/KG

1000JN HEXADECANDIC ACID

FOOTNOTES *FOOTNOTES***

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

06/08/89

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**

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA

SOURCE: WESTINGHOUSE ELECT. STATION ID: SB-01 BACKGROUND SUBSURFACE SOIL COLLECTION START: 05/03/89 1550 STOP: 00/00/00 ** * *

* *

ANAI YTICAL RESULTS UG/KG

HEXADECANOIC ACID 5000JN OCTADECANOIC ACID 400JN

FOOTNOTES

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

06/08/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG * * SOURCE: WESTINGHOUSE ELECT CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1630 STOP: 00/00/00 STATION ID: SD-01 BACKGROUND SEDIMENT SOIL ** ** **

ANALYTICAL RESULTS UG/KG

2000UN HEXADECANDIC ACID

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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06/08/89

ANALYTICAL RESULTS UG/KG

6000JN HEXADECANOIC ACID OCTADECANOIC ACID PETROLEUM PRODUCT

FOOTNOTES

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV COLLEGE STATION RD. ATHENS, GA. 30613



*****MEMORANDUM****

DATE: 06/10/89

SUBJECT: Results of Metals Analysis; 89-400 WESTINGHOUSE FLEC

WESTINGHOUSE ELECT.

ATHENS

FROM: William H. McDaniel

Chief, Inorganic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

06/09/89

METALS	DATA REPORT			EPATR	EGION IV	ESD, AIRE	NS, GA.		00/09/69
*** * *	0JECT NO. 89-400		* * * * * * NO. 34899 S			PROG	ELEM: NSF	COLLECTED BY: R YOUNG	*** * * * * * * * * * * * * * * * * * *
** SO	URCE: WESTINGHOU ATION ID: SB-02	SE ELECT.			5-1-	CITY:	ATHENS CTION START:	ST: GA	P: 00/00/00 **
**		SOBSONI ACE							**
*** * * MG/I 7 0 21	SILVER UN ARSENIC A BORON ON BARIUM UN BERYLLIUM UN CADMIUM UN CADMIUM UN COBALT UN CO	* * * * * * ANALYTICAL		* * * * *	* * * *	MG/KG	* * * * * * CALCIUM MAGNESIUM TRON SODIUM POTASSIUM PERCENT MOI	ANALYTICAL RESULTS	• • • • • • • • • • • • • • • • • • • •

REMARKS

REMARKS

FOOTNOTES

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06/09/89 METALS DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL ** SOURCE: WESTINGHOUSE ELECT * * STATION ID: SS-02 SURFACE SOIL #02 COLLECTION START: 05/04/89 1020 STOP: 00/00/00 * * ** ** * * MG/KG 2 OU SILVER ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 2200 CALCTUM 6.00 ARSENIC 1900 MAGNESIUM NA BORON 14000 TRON 92 BARIUM 200U SODIUM 1.00 BERYLLIUM 1800 POTASSIUM 1.OU CADMIUM 13 PERCENT MOISTURE 5.9 COBALT CHROMTUM 28 COPPER 51 2.00 MOLYBDENUM 6.0 NICKEL 140 LEAD 6 OU ANTIMONY SELENIUM TIN 8.00 5.00 8.2 STRONTIUM 100 TELLURTUM 710 TITANTUM 200 THALLIUM

REMARKS

43 VANADIUM

YTTRTUM ZINC ZIRCONIUM

13

100 ŇĀ O. OSU MERCURY 19000 ALUMINUM 320 MANGANESE

REMARKS

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

** PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL

** SOURCE: WESTINGHOUSE ELECT.

** STATION ID: SS-03 SURFACE SOIL #03

** COLLECTION START: 05/04/89 1035 STOP: 00/00/00

**

**

**

**

MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 500 SILVER 25000 CALCIUM 150U ARSENIC 3500 MAGNESIUM NA BORON 29000 TRON 5000U SODIUM 130 BARIUM 250 BERYLLIUM 10000U POTASSIUM 250 CADMIUM 500 COBALT 33 PERCENT MOISTURE 2400 CHROMIUM 23000 COPPER 50U MOLYBDENUM

1100 TITANIUM 500U THALLIUM 70 VANADIUM 50U YTTRIUM 3000 ZINC NA ZIRCONIUM 0.05 MERCURY 28000 ALUMINUM 500 MANGANESE

STRONTIUM

TELLURIUM

1000 NICKEL 10000 LEAD 1500 ANTIMONY 2000 SELENIUM 1200 TIN

50U

250U

REMARKS

REMARKS

FOOTNOTES

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EPA-REGION IV ESD. ATHENS. GA.
                                                                                              06/09/89
METALS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL
                                                PROG ELEM: NSF COLLECTED BY: R YOUNG
                                                                                                  **
   SOURCE: WESTINGHOUSE ELECT.
                                                     CITY: ATHENS ST: GA
COLLECTION START: 05/04/89 1120 STOP: 00/00/00
                                                     CITY: ATHENS
                                                                                                  * *
   STATION ID: SS-04 SURFACE SOIL #04
                                                                                                  **
                                                                                                  **
MG/KG
                  ANALYTICAL RESULTS
                                                                   ANALYTICAL RESULTS
                                                    MG/KG
   250 SILVER
750 ARSENIC
                                                     1800 CALCTUM
                                                     1000 MAGNESIUM
    NA BORON
                                                     29000 TRON
  9000 BARIUM
12U BERYLLIUM
12U CADMIUM
                                                     ŽTOOU SODIUM
                                                     5000U POTASSIUM
                                                       29 PERCENT MOISTURE
    55 COBALT
   8700 CHROMIUM
   9900 COPPER
   250
       MOLYBDENUM
    58
       NICKEL
   9000
       LEAD
       ANTIMONY
   100
   1000
       SELENIUM
   62U
       TIN
   120
       STRONTIUM
   120U
       TELLURIUM
   170
       TITANIUM
   250U
       THALLIUM
    46
       VANADIUM
   250 YTTRIUM
  10000 ZINC
NA ZIRCONIUM
   O. 10 MERCURY
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REMARKS

REMARKS

FOOTNOTES

18000 ALUMINUM 210 MANGANESE

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06/09/89

METALS DATA REPORT	EPA-REGION IV ESD, ATTENS, GA.	00/09/09
	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1225 STOP: 00/00/00	* * * *** ** ** **
MG/KG 5.OU SILVER 15U ARSENIC NA BORON 60 BARIUM 2.5U CADMIUM 15 COBALT 56 CHROMIUM 13 COPPER 5.OU MOLYBDENUM 11 NICKEL 21 LEAD 15U ANTIMONY 20U SELENIUM 12U TIN 5.OU STRONTIUM 25U TELLURIUM 1200 TITANIUM 50U THALLIUM 81 VANADIUM 50U THALLIUM 81 VANADIUM 5.OU VIFTUM 40 ZINC NA ZIRCONIUM 0.1 MERCURY 50000 ALUMINUM 1300 MANGANESE	MG/KG ANALYTICAL RESULTS 290 CALCIUM 1200 MAGNESIUM 34000 IRON 500U SQDIUM 1200 POTASSIUM 19 PERCENT MOISTURE	* * * ***

REMARKS

REMARKS

FOOTNOTES

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06/09/89
                                        EPA-REGION IV ESD. ATHENS. GA.
METALS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL
                                                      PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA
**
                                                                                                     **
    SOURCE: WESTINGHOUSE ELECT.
                                                      CITY: ATHENS ST: GA
COLLECTION START: 05/03/89 1530 STOP: 00/00/00
                                                                                                     **
    STATION ID: SS-01 BACKGROUND SURFACE SOIL
                                                                                                     **
**
                                                                                                     **
MG/KG
                  ANALYTICAL RESULTS
                                                     MG/KG
                                                                     ANALYTICAL RESULTS
   3 OU SILVER
9.00 ARSENIC
                                                       1500 CALCIUM
                                                      8300
                                                           MAGNESIUM
    NA BORON
                                                      26000
                                                           TRON
    160 BARIUM
                                                       300U SODIUM
                                                       7800 POTASSIUM
19 PERCENT MOISTURE
   1.50 BERYLLIUM
   1.50 CADMIUM
    15
       COBALT
       CHROMIUM
    14
    7.5
       COPPER
   3.0U
       MOLYBDENUM
   6. OU NICKEL
    25
       LEAD
   9. 00
       ANTIMONY
        SELENTUM
    120
   7.5U
        TIN
   3.00
       STRONTIUM
    150
       TELLURIUM
       TITANIUM
   1800
    30Ŭ
        THALLIUM
     61
        VANADIUM
        YTTRIUM
     14
     53
        ZINC
        ZIRCONIUM
     NA
  0.050
       MERCURY
```

REMARKS

REMARKS

FOOTNOTES

30000 ALUMINUM

MANGANESE

800

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EPA-REGION IV ESD. ATHENS. GA.
                                                                                               06/09/89
METALS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL
                                                  PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1550 STOP: 00/00/00
**
                                                                                                   **
   SOURCE: WESTINGHOUSE ELECT.
**
                                                                                                   **
   STATION ID: 58-01 BACKGROUND SUBSURFACE SOIL
                                                                                                   **
                                                                                                   * *
MG/KG
                  ANALYTICAL RESULTS
                                                    MG/KG
                                                                   ANALYTICAL RESULTS
   5.00 SILVER
                                                      2500 CALCIUM
   150 ARSENIC
                                                      1100 MAGNESIUM
    NA BORON
                                                     45000 TRON
    26 BARIUM
                                                      SOOU SODIUM
   2.50 BERYLLIUM
2.50 CADMIUM
                                                      1100 POTASSIUM
                                                       22 PERCENT MOISTURE
   5. OU
       COBALT
       CHROMIUM
    29
    34
       COPPER
   5. OU MOLYBDENUM
       NICKEL
    29
      LEAD
    15U ANTIMONY
       SELENIUM
   20U
   120
       TIN
   5.00
       STRONTIUM
   25U
       TELLURIUM
    940
       TITANIUM
    50Ŭ
       THALLIUM
   120
       VANADIUM
   9.7
       VITRIUM
    26
       ZINC
```

REMARKS

NA

250

0.050

ZIRCONIUM

MANGANESE

MERCURY 27000 ALUMINUM

REMARKS

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EPA-REGION IV ESD, ATHENS, GA. METALS DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1630 STOP: 00/00/00 PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL * * SOURCE: WESTINGHOUSE ELECT. * * STATION ID: SD-01 BACKGROUND SEDIMENT SOIL * * ** ** MG/KG MG/KG ANALYTICAL RESULTS ANALYTICAL RESULTS 150 CALCIUM 710 MAGNESI 2 OU SILVER 6.0U ARSENIC MAGNESIUM BORON NA 16000 TRON BARIUM 200U SODIUM 1.OU BERYLLIUM 820 POTASSIUM 1.OU CADMIUM 20 PERCENT MOISTURE 2.00 COBALT 15 CHROMIUM 3.9 COPPER 2.00 MOLYBDENUM 4. OU NICKEL 6.3 LEAD 6,00 ANTIMONY SELÊNÎUM TIN 8.00 5.00 STRONTIUM 10U TELLURIUM 410 TITANIUM 200 THALLIUM 42 VANADIUM 7.1 YTTRIUM ZINC ZIRCONIUM 12 NA 0.05U MERCURY

REMARKS

4400 ALUMINUM 150 MANGANESE

REMARKS

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METALS DATA REPORT	EPA-REGION IV ESD, ATHENS, GA.	06/09/89
### # # # # # # # # # # # # # # # # #		* * * * ***
** PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG	**
** SOURCE: WESTINGHOUSE ELECT.	CITY: ATHENS ST: GA	**
** STATION ID: SD-02 SEDIMENT SOIL #02	COLLECTION START: 05/03/89 1815 STOP: 00/00/00	**
**		**
MG/KG ANALYTICAL RESULTS	* * * * * * * * * * * * * * * * * * *	* * * * **
6 OU SILVER	1200 CALCIUM	
18U ARSENIC	1900 MAGNESIUM	
NA BORON	50000 TRON	
180 BARIUM	COOU SODIUM	
3.OU BERYLLIUM 3.OU CADMIUM	1400 POTASSIUM	
3.00 CADMIUM 18 COBALT	45 PERCENT MOISTURE	
47 CHROMIUM		
30 COPPER		
6.OU MOLYBDENUM		
12U NICKEL		
45 LĒĀD 18U ANTIMONY		
24U SELENIUM		
15U TIN		
12 STRONTIUM		
30U TELLURIUM		
1000 TITANIUM		
60U THALLIUM 120 VANADIUM		
25 YTTRIUM		
57 ZINC		
NA ZIRCONIUM		
O.O5U MERCURY		
46000 ALUMINUM		
4500 MANGANESE		

REMARKS

^{***}FOOTNOTES***

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06/08/89

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 89-400 . SAMPLE NO. 34903 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT: PROG FLEM: NSF COLLECTED BY: R YOUNG

CITY: ATHENS ŠŤ: GÁ

. . STATION ID: SB-03 SUBSURFACE SOIL #03 COLLECTION START: 05/04/89 1225 STOP: 00/00/00 * * * *

ANALYTICAL RESULTS UG/KG

TETRADECANOIC ACID 200JN HEXADECANOIC ACID 5000JN 700JN

FOOTNOTES

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06/14/89 PESTICIDES/PCB'S DATA REPORT ** PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG STATE OF COLLECTION START. 05/03/89 1550 STOP: 00/00/00 ** * * UG/KG ANALYTICAL RESULTS UG/KG . ANALYTICAL RESULTS 62U PCB-1232 (AROCLOR 1232) 62U PCB-1248 (AROCLOR 1248) 62U PCB-1260 (AROCLOR 1260) 8.1U ALDRIN 270 HEPTACHLOR HEPTACHLOR EPOXIDE 8.10 ALPIIA-BHC PCB-1016 (AROCLOR 1016) TOXAPHENE 8.10 620 8 10 BETA-BHC 3100 8.10 GAMMA BIIC (LINDANE) CHLORDENE ___ ALPHA-CHLORDENE /2 BETA CHLORDENE /2 GAMMA-CHLORDENE /2 8.10 DEL IA-BHC 8.10 ENDOSULFAN I (ALPHA) ___ GAMMA-CHLORDENE /2 1-HYDROXYCHLORDENE GAMMA-CHLORDANE /2 DIELDRIN 8.10 ___ 4,4'-DOT (P,P'-DOT) 4,4'-DOE (P,P'-DDE) 4,4'-DOD (P,P'-DDD) 8 10 8.10 8 10 TRANS-NONACHLOR ENDRIN ALPHA-CHLORDANE CIS-NONACHLOR 8 1U ---ENDRIN
ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221) 8.10 OXYCHLORDANE (OCTACHLOREPOXIDE) /2 8.10 ___ 42U 190 METHOXYCHLOR 8.10 21 62U ENDRIN KETONE 62U PERCENT MOISTURE

REMARKS

REMARKS

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1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

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PESTICIDES/PCB'S DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT.
                                                                                  PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1005 STOP: 00/00/00
      SOURCE: WESTINGHOUSE ELECT,
STATION ID: SB-02 SUBSURFACE SOIL #2
                                                                                                                                                         . .
UG/KG ANALYTICAL RESULTS
                                                                                   UG/KG . ANALYTICAL RESULTS
                                                                                  62U PCB-1232 (AROCLOR 1232)
62U PCB-1248 (AROCLOR 1248)
62U PCB-1260 (AROCLOR 1260)
   8.1U ALDRIN
   8.10
           HEPTACHLOR
   8.10
           HEPTACHLOR EPOXIDE
   8.10
            ALPHA-BHC
                                                                                   620
                                                                                          PCB-1016 (AROCLOR 1016)
   8.10
            BETA-BHC
                                                                                  3100
                                                                                          TOXAPHENE
   8.10
            GAMMA BHC (LINDANE)
                                                                                          CHLORDENE
                                                                                 ___
                                                                                          ALPHA-CHLORDENE /2
BETA CHLORDENE /2
GAMMA-CHLORDENE /2
            DEL LA-BHC
   8.1U
            ENDOSULFAN I (ALPHA)
   8.10
   8.10
            DIELDRIN
           4.4'-DOT (P,P'-DOT)
4.4'-DDE (P,P'-DDE)
4.4'-DDD (P,P'-DDD)
                                                                                          1-HYDROXYCHLORDENE
   8. 1J
                                                                                          GAMMA-CHLORDANE /2
TRANS-NONACHLOR /2
   8.10
   8.10
                                                                                          ALPHA-CHLORDANE /2
   8.10
            ENDRIN
           ENDRIN
ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221)
                                                                                          CIS-NONACHLOR
   8.10
                                                                                          OXYCHLORDANE (OCTACHLOREPOXIDE) /2
   8.10
     42U
                                                                                 190
                                                                                          METHOXYCHLOR
     62U
                                                                                  8.10
                                                                                          ENDRIN KETONE
     62U
                                                                                   22
                                                                                          PERCENT MOISTURE
```

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

06/14/89 PESTICIDES/PCB'S DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START. 05/04/89 1225 STOP: 00/00/00 PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL . . SOURCE: WESTINGHOUSE ELECT.
STATION ID: SB-03 SUBSURFACE SOIL #03 ** UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS ... 62U PCB-1232 (AROCLOR 1232) 62U PCB-1248 (AROCLOR 1243) 62U PCB-1260 (AROCLOR 1260) 62U PCB-1016 (AROCLOR 1016) 8.10 ALDRIN HEPTACHLOR 8 10 HEPTACHLOR FPOXIDE 8.10 8 10 ALPHA-BHC 8.10 BETA-BHC 3100 TOXAPHENE 8.10 GAMMA BHC (LINDANE) CHLORDENE /2 ---ALPHA-CHLORDENE /2 BETA CHLORDENE /2 GAMMA-CHLORDENE /2 8 10 DEL I A-BHC ---8.10 ENDOSULFAN I (ALPHA) ---8.10 DIELDRIN ---4,4'-DDT (P.P'-DDT) 4,4'-DDE (P.P'-DDE) 4,4'-DDD (P.P'-DDD) 1-HYDROXYCHLORDENE 8.10 GAMMA-CHLORDANE /2 8.10 8.1U TRANS-NONACHLOR ALPHA-CHLORDANE /2 ENDRIN 8.10 ---ENDRIN
ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254),
PCB-1221 (AROCLOR 1221). CIS-NONACHLOR 8.10

___ 190

8 10 19

REMARKS

8.10

42U

62U

62U

REMARKS

OXYCHLORDANE (OCTACHLOREPOXIDE) /2

METHOXYCHLOR

ENDRIN KETONE

PERCENT MOISTURE

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN .*L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

06/13/89

PURGFABLE ORGANICS DATA REPORT ** PROJECT NO. 89 400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG STATION ID: SD-01 BACKGROUND SEDIMENT SOIL COLLECTION START: 05/03/89 1630 STOP: (0)/(0)/00 UG/KG ANALYTICAL RESULTS UG/KG . ANALYTICAL RESULTS 44U CHLOROMETHANE 440 CIS 1,3-DICHLOROPROPENE VINYL CHLORIDE BROMOMETHANE 44U 44(11) METHYL ISOBUTYL KETONE 440 TOLUENE 440 TRANS-1.3 DICHLOROPROPENE 449 CHLOROETHANE 140 4411 TRICHLOROFI, UOROMETHANE 440 440 1.1-DICHLOROCTHENE(1.1-DICHLORUETHYLENE) 110 TETRACHLOROETHENE (TETRACHLORUETHY) FNF) 4400 ACE TONE 44U 1.3-DICHLOROPROPANE CARBON DISULFIDE 440U 440U METHYL BUTYL KETONE METHYLENE CHLORIDE TRANS-1, 2-DICHLOROETHENE 44U **DIBROMOCHLOROMETHANE** 44U AAU CHL OROBENZENE 44U 44U 1.1-DICHLOROETHANE 1,1,1,2-TETRACHLOROETHANE ETHYL BENZENE 44U VINYL ACETATE CIS-1, 2-DICHLOROETHENE 440U 440 440 44U (M- AND/OR P-)XYLENE AAU 2,2-DICHLOROPROPANE 44U O-XYLENE 4400 METHYL ETHYL KETONE 440 STYRENE 44U **BROMOCHLOROMETHANE** 44U BROMOFORM CHLOROFORM BROMOBENZENE 4411 440 440 1, 1, 1-TRICHLOROLIHANE 1,1.2,2-TETRACHLORUETHANE 44U 44U 1.1 DICHLOROPROPENE 140 1,2,3-TRICHLOROPROPANE CARBON TETRACHLORIDE 4411 440 O-CHLURUTULUENE 1,2-DICHLOROETHANE BENZENE 44U 44U P-CHLOROTOLUENE 440 440 1.3-DICHLOROBENZENE TRICHLOROFTHENE (RICHLOROETHYLENE)
1,2-DICHLOROPROPANE 1.4-DICHLOROBENZENE 1,2-DICHLOROBENZENE 440 440 44U 440 440 DIBROMOMETHANE 33.0 PERCENT MOISTURE 4411 BROMODICHLOROMETHANF

REMARKS

^{***}FOOTNOTES***

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

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```
CIS 1,3-DICHLOROPROPENE
METHYL ISUBULYL KETONE
        CHLOROMETHANE
                                                                               73U
       VINYL CHLORIDE .
BROMOMETHANE
 73U
                                                                              7300
 730
                                                                               73U
                                                                                      TOLUENE
                                                                                      TRANS-1,3 DICHLOROPROPENE
1,1,2-IRICHLOROFTHANE
        CHLOROETHANE
 73U
                                                                               730
 730
        IRICHLOROFI UOROME THANE
                                                                               73Ú
 730
        1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE)
                                                                               73U
                                                                                      TETRACHLOROETHENE (TETRACHLOROETHY) FNE )
        ACE LONE
730U
                                                                               730
                                                                                      1.3-DICHLOROPROPANE
730U
        CARBON DISULFIDE
                                                                              730Ü
                                                                                      METHYL BUTYL KETONE
       METHYLENE CHLORIDE
TRANS-1,2-DICHLOROETHENE
1,1-DICHLOROETHANE
 730
                                                                               730
                                                                                      DIBROMOCHLOROMETHANE
                                                                                      CHLOROBENZENE
 73U
                                                                               73U
                                                                                      1,1,1,2-TETRACHLOROETHANE
ETHYL BENZENE
                                                                               73U
 730
        VINYL ACETATE
CIS-1, 2-DICHLOROETHENE
7300
                                                                               73Ŭ
 73U
                                                                               73Ŭ
                                                                                      (M- AND/OR P-)XYLENE
 73U
        2.2-DICHLOROPROPANE
                                                                               73U
                                                                                      O-XYLENE
7300
        METHYL ETHYL KETONE
                                                                               730
                                                                                      STYRENE
 730
        BROMOCHLOROMETHANE
                                                                               730
                                                                                      BROMOFORM
 73U
        CHLOROFORM
                                                                               730
                                                                                      BROMOBENZENE
        1,1,1-TRICHLORUETHANE
1,1-DICHLOROPROPENE
                                                                                      1,1,2,2-TETRACHLOROETHANE
 73U
                                                                               730
                                                                                      1,2,3-TRICHLOROPROPANE
 73U
                                                                               730
        CARBON TETRACHLORIDE
                                                                               73Ŭ
 730
                                                                                      O-CHLORUTULUENE
 73U
        1,2-DICHLOROETHANE
                                                                               73U
                                                                                      P-CHLOROTOLUENE
 73U
        BENZENE
                                                                               730
                                                                                      1,3-DICHLOROBENZENE
        TRICHLOROFTHENE(IRICHLOROETHYLENE)
                                                                               730
 73U
                                                                                      1,4-DICHLOROBENZENE
        1,2 DICHLOROPROPANE
 73U
                                                                               730
                                                                                      1.2-DICHLOROBENZENE
 73U
        DIBROMOMETHANE
                                                                                      PERCENT MOISTURE
                                                                             48.0
 73U
        BROMODICHLOROMETHANF
```

REMARKS

^{***}FOOTNOTES***

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EXTRACTABLE ORGANICS DATA REPORT

** PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL

** SOURCE: WESTINGHONISE ELECT.

** CTATTOM TO. SD-01 RACKGROUND SEDIMENT SOIL

** COLLECTION START: 05/03/89 1630 STUP: (10/00/00)
 UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS
                                                                                                                                                                                                UG/KG ANALYTICAL RESULTS
      2000UJ BIS(2:CHLGROETHYL) ETHER
2000UJ BIS(2-CHLOROISOPROPYL) ETHER
2000UJ N-NITROSODI-N-PROPYLAMINF
                                                                                                                                                                                              2000UJ FLUORANTHENE
2000UJ PYRFNE
2000UJ BENZYL BUTYI PHTHALATE
2000UJ 3,3'-DICHLOROBENZIDINE
2000UJ BENZO(A)ANTHRACENF
       2000UJ HEXACHLOROETHANE
       2000UJ NITROBENZENE
       2000UJ ISOPHORONE
2000UJ BIS(2-CHLOROETHOXY) METHANE
                                                                                                                                                                                               2000UJ CHRYSENE
                                                                                                                                                                                               2000UJ BIS(2-ETHYLHEXYL) PHTHALATE
2000UJ DI-N-OCTYLPHTHALATE
                                                                                                                                                                                            2000UJ BIS(2-ETHYLHEXYL) PHTHALATE
2000UJ DI-N-OCTYLPHTHALATE
2000UJ BENZO(B AND/OR K)FLUORANTHENE
2000UJ BENZO-A-PYRENE
2000UJ DIBENZO(A, H)ANTHRACENE
2000UJ BENZO(GHI)PERYLENE
2000UJ PHENOL
2000UJ 2-CHLOROPHENOL
2000UJ 2-METHYLPHENOL
2000UJ 2-METHYLPHENOL
2000UJ 2-NITROPHENOL
2000UJ 2-NITROPHENOL
2000UJ 2, 4-DIME HYLPHENUL
4000UJ BENZOIC ACID
2000UJ 2, 4-DICHLOROPHENOL
2000UJ 2, 4-DICHLOROPHENOL
2000UJ 2, 4-FATICHLOROPHENOL
2000UJ 2, 4-FATICHLOROPHENOL
2000UJ 2, 4-DINITROPHENOL
2000UJ 2, 3, 4, 6-TETRACHLOROPHENOL
4000UJ 2-METHYL-4, 6-DINITROPHENOL
4000UJ PENTACHLOROPHENOL
33 PERCENT MOISTURE
      2000UJ 1,2,4-TRICHLOROBENZENE
2000UJ NAPHTHALENE
2000UJ 4-CHLOROANILINE
       2000UJ HEXACHLOROBUTADIENE
       2000UJ 2-METHYLNAPHTHALENE
     2000UJ 2-MEIHYLNAPHTHALENE
2000UJ HEXACHLOROCYCLOPENTADIENE (HCCP)
2000UJ 2-CHLORONAPHTHALENE
2000UJ 2-NITROANILINE
2000UJ DIMETHYL PHTHALATE
2000UJ ACENAPHTHYLENE
2000UJ 2,6-DINITROANILINE
2000UJ 3-NITROANILINE
2000UJ ACENAPHTHENE
      2000UJ DIBENZOFURAN
2000UJ 2,4-DINITROTOLUENE
2000UJ DIETHYL PHTHALATE
2000UJ FLUORENE
2000UJ 4-CHLOROPHENYL PHENYL ETHER
2000UJ 4-NITROANILINE
2000UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
2000UJ 4-BROMOPHENYL PHENYL ETHER
2000UJ HEXACHLOROBENZENE (HCB)
2000UJ PHENANTHRENE
2000UJ ANTHRACENE
       2000ULL ACENAPHTHEME
        2000UJ ANTHRACENE
        2000UJ DI-N-BUTYLPHTHALATE
```

REMARKS

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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

06/08/89

..

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROG ELEM: NSF COLLECTED BY: R YOUNG

** PROJECT NO. 89-400 ' SAMPLE NO. 34906 SAMPLE TYPE: SOIL
** SOURCE: WESTINGHOUSE ELECT
** STATION ID: SD-01 BACKGROUND SEDIMENT SOIL CITY: ATHENS ST: GA CULLECTION START: 05/03/89 1630 STOP: 00/00/00

** . .

ANALYTICAL RESULTS UG/KG

2000/IN HEXADECANOIC ACID

FOOTNOTES POUTNOTES***

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

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*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

```
EXTRACTABLE ORGANICS DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG ** SOURCE: WESTINGHOUSE ELECT.
     SOURCE: WESTINGHOUSE ELECT.
STATION ID: SD-02 SEDIMENT SOIL #02
                                                                                       CITY: ATHENS SI: GA
COLLECTION START: 05/03/89 1815 STOP: 00/00/00
. .
UG/KG . ANALYTICAL RESULTS
                                                                                      UG/KG
                                                                                                              ANALYTICAL RESULTS
   2500U BIS(2-CHLOROETHYL) ETHER
2500U BIS(2-CHLOROISOPROPYL) ETHER
2500U N-NITROSODI-N-PROPYLAMINE
                                                                                      2500U FLUORANTHENE
                                                                                      2500U PYRENE
2500U BENZYL BUTYI PHTHALATE
2500U 3,3'-DICHLOROBENZIDINE
   2500U HEXACHLOROETHANE
2500U NITROBENZENE
2500U ISOPHORONE
                                                                                      2500U BÉNZU(A)ANTHRACENE
                                                                                      2500U
                                                                                              CHRYSENE
   2500U BIS(2-CHLOROETHOXY) METHANE
2500U 1,2,4-TRICHLOROBENZENE
                                                                                      2500U BIS(2-ETHYLHEXYL) PHTHALATE
2500U DI-N-OCTYLPHTHALATE
    2500U NAPHTHALENE
                                                                                      2500U BENZO(B AND/OR K)FLUORANTHENE
                                                                                      2500U BENZO-A-PYRENE
2500U INDENO (1,2,3-CD) PYRENE
2500U DIBENZO(A,H)ANTHRACENE
   2500U 4-CHLOROANILINE
2500U HEXACHLOROBUTADIENE
    2500U 2-METHYLNAPHTHALENE
    2500U HEXACHLOROCYCLOPENTADIENE (HCCP)
                                                                                       2500U BENZO(GHI)PERYLENE
   2500U HEARCHLOROCYCLOPENTA
2500U 2-CHLORONAPHTHALENE
2500U 2-NITROANILINE
2500U DIMETHYL PHTHALATE
                                                                                      2500U PHENOL
                                                                                      2500U 2-CHLOROPHENOL
                                                                                      5000U BENZYL ALCOHOL
2500U 2-METHYLPHENOL
2500U (3-AND/OR 4-)M
   2500U ACENAPHTHYLENE
2500U 2,6-DINITROTOLUENE
2500U 3-NITROANILINE
                                                                                              (3-AND/OR 4-)METHYLPHENOL
                                                                                       2500U 2-NITROPHENOL
    2500U ACENAPHTHENE
                                                                                       25000 2,4-UIMETHYLPHENOL
    2500U DIBENZOFURAN
                                                                                      5000U BENZOIC ACID
                                                                                      2500U 2,4-DICHLOROPHENOL
2500U 4-CHLORO-3-METHYLPHFNOL
2500U 2,4,6-TRICHLOROPHENOL
2500U 2,4,5-TRICHLOROPHENOL
   2500U 2.4-DINITROTOLUENE
2500U DIETHYL PHTHALATE
2500U FLUORENE
    2500U 4-CHLOROPHENYL PHENYL ETHER
    2500U 4-NITROANILINE
                                                                                      5000U 2,4-DINITROPHENOL
                                                                                      5000U 4-NITROPHENOL
2500U 2,3,4,6-TETRACHLOROPHENOL
5000U 2-METHYL-4,6-DINITROPHENOL
5000U PENTACHI OROPHENOL
    2500U N-NI TROSODI PHENYLAMINE/DIPHENYLAMINE
    2500U 4-BROMOPHENYL PHENYL ETHER
    2500U HEXACHLOROBENZENE (HCB)
2500U PHENANTHRENE
    2500U ANTHRACENE
                                                                                          48 PERCENT MOISTURE
    2500U DI-N-BUTYLPHTHALATE
```

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

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06/08/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1815 STOP: 00/00/00 .. PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. STATION ID: SD-02 SEDIMENT SOIL #02 * * ** * * * *

ANALYTICAL RESULTS UG/KG

6000JN HEXADECANDIC ACID 700JN OCTADECANOIC ACID PETROLEUM PRODUCT

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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06/14/89 PESTICIDES/PCB'S DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA SOURCE: WESTINGHOUSE ELECT. STATION ID: SD-01 BACKGROUND SEDIMENT SOIL CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1630 STOP: 00/00/00 UG/KG ANALYTICAL RESULTS UG/KG · ANALYTICAL RESULTS 73U PCB-1232 (AROCLOR 1232) 73U PCB-1248 (AROCLOR 1248) 73U PCB-1260 (AROCLOR 1260) 73U PCB-1016 (AROCLOR 1016) 9.5U ALDRIN 9 50 HEPTACHLOR HEPTACHLOR EPOXIDE 9.50 9.50 ALPIIA-BHC 9.50 BETA-BHC TOXAPHENE 360U CHLORDENE /2 GAMMA BIIC (LINDANE) 9.50 ALPHA-CHLORDENE 9 50 DEL IA-BHC BETA CHLORDENE /2
GAMMA-CHLORDENE /2
1-HYDROXYCHLORDENE 9.50 ENDOSULFAN I (ALPHA) 9.50 DIELDRIN 4.4'-DOT (P.P'-DOT) 4.4'-DDE (P.P'-DOE) 4.4'-DDD (P.P'-DDD) THYURUXYCHLORDENE /2
GAMMA-CHLORDANE /2
TRANS-NONACHLOR /2
ALPHA-CHLORDANE /2 9.50 9.50 9.50 9.50 ENDRIN /2 ENDRIN
ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221) 9.50 CIS-NONACHLOR 9 50 OXYCHLORDANE (OCTACHLOREPOXIDE) /2 22U 9.5U **49**U METHOXYCHLOR 730 **FNDRIN KETONE** PERCENT MOISTURE

REMARKS

730

REMARKS

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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06/14/89 PESTICIDES/PCB'S DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT.
STATION ID: SD-02 SEDIMENT SOIL #02 PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1815 STOP: 00/00/00 ANALYTICAL RESULTS UG/KG . ANALYTICAL RESULTS ALDRIN QOU PCB-1232 (AROCLOR 1232) 12Ŭ HEPTACHLOR PCB-1248 (AROCLOR 1248) PCB-1260 (AROCLOR 1260) 900 120 HEPTACHLOR FPOXIDE 90ú 120 ALPIIA-BHC 900 PCB-1016 (AROCLOR 1016) 120 BETA-BHC 450U TOXAPHENE 120 GAMMA BIIC (LINDANE) CHLORDENE ___ 120 ALPHA-CHLORDENE /2 DEL I A-BHC BETA CHLORDENE /2 GAMMA-CHLORDENE /2 120 ENDOSULFAN I (ALPHA) GAMMA-CHLORDENE /2 1-HYDROXYCHLORDENE GAMMA-CHLORDANE /2 120 DIELDRIN 4,4'-DDT (P,P'-DDT) 4,4'-DDE (P,P'-DDE) 4,4'-DDD (P,P'-DDD) 120 120 TRANS-NONACHLOR 120 12 /2 ENDRIN 120 ALPHA-CHLORDANE ENDRIN
ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254),
PCB-1221 (AROCLOR 1221). 120 CIS-NONACHLOR 120 OXYCHLORDANE (OCTACHLOREPOXIDE) /2 610 28U METHOXYCHLOR 900 120 **ENDRIN KETONE** 900 48 PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

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D-586-1-0-30

DRAFT

SCREENING SITE INSPECTION REPORT, PHASE II WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA EPA ID #: GAD003295144

Prepared Under TDD No. F4-8903-40 CONTRACT NO. 68-01-7346

Revision 0

FOR THE

WASTE MANAGEMENT DIVISION U.S. ENVIRONMENTAL PROTECTION AGENCY

MAY 30, 1990

NUS CORPORATION SUPERFUND DIVISION

Prepared By

Reviewed By

Reviewed By

Approved By

SISB/SAS

JUN U 1 1990

EPA - REGION IV

ATLANTA, GA.

Project Manager

Robert Huther Professional

Geologist

Assistant Regional

Project Manager

Regional Project

Manager

NOTICE

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EXECUTIVE SUMMARY

The Westinghouse Electric Corporation (WEC) site is located north of Athens, Clarke County, Georgia. Operations at the facility include the manufacturing and repairing of overland distribution transformers. Between 1958 and 1970, WEC disposed of wastes generated from the manufacturing process in an onsite landfill. Wastes disposed of in the landfill may include spent solvents, acids and bases, paint and oil.

The WEC site is located in the Piedmont Physiographic Province. The rocks underlying this province are massive igneous and metamorphic rocks. The aquifer used in the study area can be characterized as a crystalline rock aquifer. In this aquifer, groundwater is stored in the unconsolidated material overlying the crystalline rock and within fractures that have formed in the crystalline rock. However, only three private wells are located in the 4-mile site radius.

Water is supplied to Athens and the surrounding areas by surface water obtained from the North and Middle Oconee rivers. One intake is located approximately 2.65 stream miles south of the site on the North Oconee River. There is a slight potential for site-related contaminant migration to the surface water pathway during periods of heavy rainfall. Approximately 98,800 persons are served by the Athens Water Department. The results of sediment sampling revealed the presence of inorganic contaminants with significantly higher concentrations than background conditions.

Organic and inorganic analytical results revealed the presence of site-related contaminants in the surface soils collected. Organic contaminants detected from the samples include fluoranthene, pyrene, benzo(a) anthracene, and benzo (b and/or k) fluoranthene. Inorganic elements revealed in samples included barium, chromium, copper, lead and zinc. There is a population of approximately 49,884 within the 4-mile site radius. Access to the landfill is unrestricted, and uncontained contaminated surface soils could be dispersed by the wind. Potentially affected targets include employees at the WEC facility and adjacent industrial properties and 486 people residing within the 1-mile site radius.

Based on the aforementioned information, FIT 4 recommends that a Listing Site Inspection, Phase I, be conducted at the WEC site.

1.0 INTRODUCTION

The NUS Corporation Region 4 Field Investigation Team (FIT) was tasked by the U. S. Environmental Protection Agency (EPA), Waste Management Division to conduct two screening site inspections (SSI) at the Westinghouse Electric Corporation site in Athens, Clarke County, Georgia. The inspections were performed under the authority of the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The tasks were performed to satisfy the requirements stated in Technical Directive Document (TDD) numbers F4-8903-40 and F4-8904-04. The field investigations were conducted May 3-4, 1989.

1.1 OBJECTIVES

The objectives of this inspection were to determine the nature of contaminants present at the site and to determine if a release of these substances has occurred or may occur. Further, this inspection sought to determine the possible pathways by which contamination could migrate from the site and the populations and environments it would potentially affect. Through these objectives, a recommendation was made regarding future activities at the site.

1.2 SCOPE OF WORK

The objectives were achieved through the completion of a number of specific tasks. These activities were to:

- Obtain and review relevant background materials.
- Obtain information on local water systems.
- Evaluate target population within a 4-mile radius of the site with regard to groundwater and 15-stream miles with regard to surface water use.
- Develop a site sketch, drawn to scale.
- Collect environmental samples.

2.0 SITE CHARACTERIZATION

2.1 SITE BACKGROUND AND HISTORY

The Westinghouse Electric Corporation (WEC) is located on Newton Bridge Road, in Athens, Clarke County, Georgia. The facility has been actively manufacturing and repairing overhead distribution transformers at the present location since 1957. Wastes generated from the manufacturing processes were disposed of in an onsite landfill from 1958 to 1970 in fiber containers, and five- and 55-gallon metal drums (Refs. 1, 2). Between 1971 and 1977, generated wastes were disposed of at the Clarke County landfill located east of Athens, Georgia. During 1978 and 1979, WEC began shipping accumulated wastes to SCA services in South Carolina. Current disposal practices employ reclamation and incineration (Ref. 1).

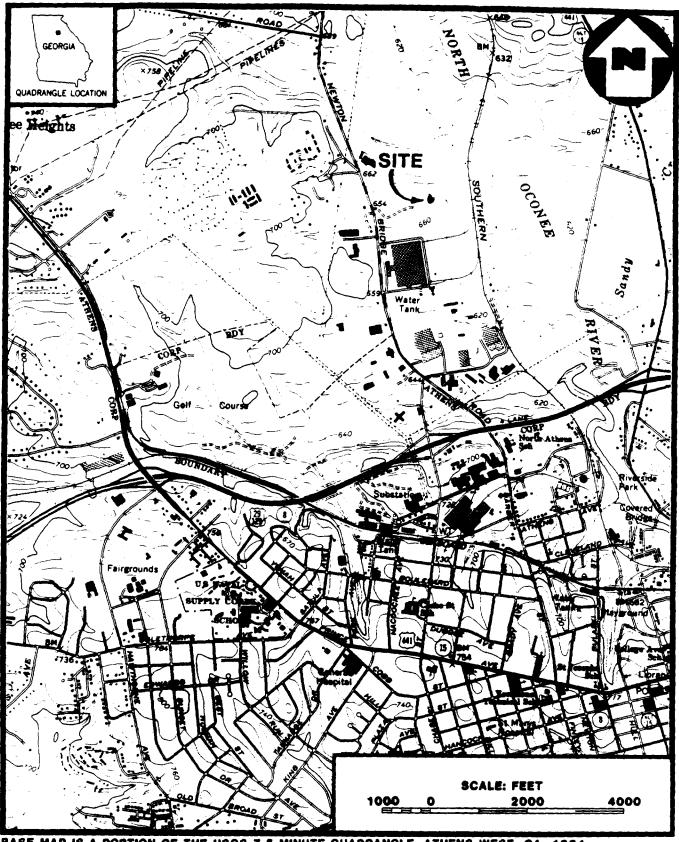
Sometime during 1988, WEC representatives began reviewing all of their facilities to ensure compliance with federal, state, and local environmental regulations. It was at this time that WEC representatives became aware of past disposal practices involving the landfill (Ref. 3). On December 20, 1988, WEC submitted an EPA Notification of Hazardous Waste Site (EPA Form 8900-1) for the Athens facility (Ref. 2).

The Part A Application for this facility was withdrawn in 1982, and the facility is presently classified as a generator of hazardous waste (Ref. 4).

2.2 SITE DESCRIPTION

2.2.1 <u>Site Features</u>

The WEC facility, at 33°58′31.0″ N latitude and 083°23′44.0″ W longitude, is located in an industrial district north of the city of Athens, Clarke County, Georgia (Figure 1) (Appendix A). The entire WEC facility is approximately 237.8 acres (Ref. 2). The landfill, which is located 900 feet northeast of the main facility, is irregularly shaped and consists of approximately 1 acre. The site is located on a ridge, and drainage is to the east and northeast (Figure 2) (Ref. 5, Appendix A). Facility slope is approximately 2.0 percent (Appendix A).

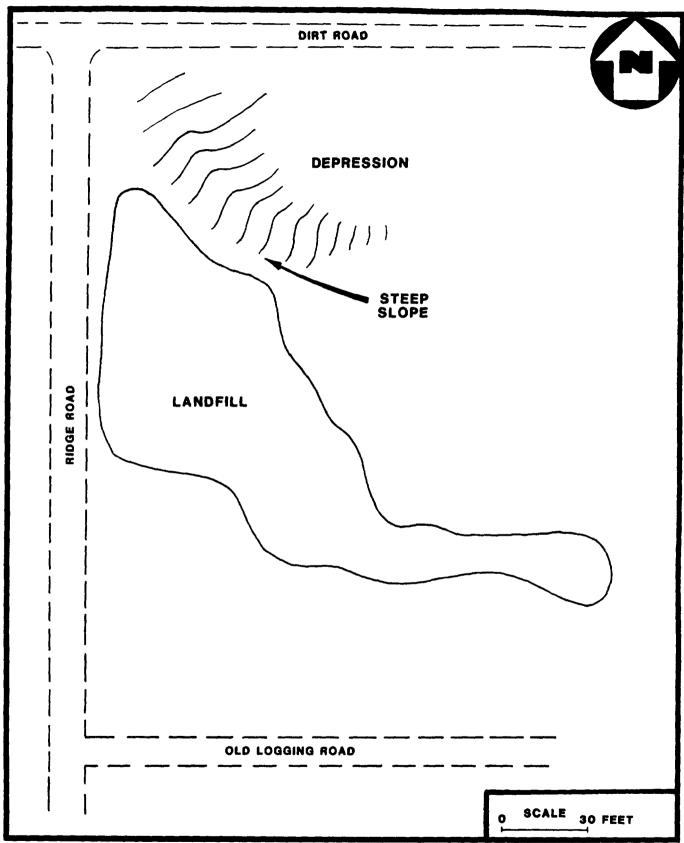


BASE MAP IS A PORTION OF THE USGS 7.5 MINUTE QUADRANGLE, ATHENS WEST, GA. 1984. SITE LOCATION MAP WESTINGHOUSE ELECTRIC CORPORATION

ATHENS, GEORGIA

FIGURE 1





SITE LAYOUT MAP
WESTINGHOUSE ELECTRIC
CORPORATION LANDFILL
ATHENS, CLARKE COUNTY, GEORGIA

FIGURE 2



The landfill, which is heavily vegetated with no evidence of any ongoing activities, is readily accessible. An unrestricted dirt road located adjacent to the landfilled area is accessible from the WEC north parking lot. In addition, no fence or barriers to entry are in place around the landfill. The dirt road leading from the north parking lot bounds the site to the north and west. The site is bounded by an old logging dirt road to the south, and woods to the east (Ref. 5).

2.2.2 Waste Characteristics

Westinghouse disposed of halogenated solvents and treated acids and bases resulting from electrical transformer manufacturing processes in a landfill from 1958 to 1970 (Ref. 6). The hazardous waste present at the facility include spent solvents, acids and bases, paint, and oil. The acids are a mixture of phosphoric acid and hydrochloric acid, known as bright dip. Other wastes identified by the preliminary assessment were oily waste, solvents, heavy metals, and methyl ethyl ketone (Ref. 1). An identification table of the waste liquids included cleaning mixtures (kerosenes), wire enamel thinners, enamel paint strippers, paint thinners (xylene), wire drawing and rolling lubes, transformer oil, and lubricating oil (Ref. 7). WEC representatives stated that mineral oil was used in the transformers instead of PCBs (Ref. 8).

3.0 REGIONAL POPULATIONS AND ENVIRONMENTS

3.1 POPULATION AND LAND USE

3.1.1 Demography

The study area is located approximately 1 mile north of Athens and is adjacent to industrial properties and rural areas (Appendix A). The population of Athens, Georgia is approximately 45,000 (including students attending the University of Georgia), the major portion of which is encompassed by the southeast quadrant of the 4-mile site radius (Ref. 9). Population density increases rapidly to the south of the WEC site. To the east, north, and west, however, population decreases rapidly (Appendix A). The population distribution is 486 between 0 and 1 mile; 18,718 between 1 and 2 miles; 18,265 between 2 and 3 miles; and 12,415 between 3 and 4 miles (Ref. 10).

3.1.2 Land Use

Within a 4-mile radius of the site, the area is comprised, in descending percentage, of rural/undeveloped, residential, commercial, and industrial property. The nearest residence is located approximately 0.5 mile west-northwest of the landfill. The closest multifamily dwelling, Rolling Ridge Apartments, is located 0.7 mile northwest of the site and consists of sixteen apartment buildings. As seen from the USGS topographic map, the WEC landfill is within 1 mile of the North Athens Elementary School. Students attend 14 other schools, including the University of Georgia, in the 4-mile radius (Ref. 8, Appendix A).

The North Oconee River Park, the closest park to the WEC landfill, is situated along the banks of the North Oconee River approximately 1 mile southeast of the site. The park offers picnicing and fishing (Ref. 8).

The nearest commercial area is located in downtown Athens approximately 2 miles south of the site. This area is a mixture of shops, banks, and restaurants, which comprises the downtown district (Ref. 8).

Areas of dense industrial development are located south of the site. However, the nearest industry, Lyons Textile Mills, is located approximately 0.3 mile northwest of the WEC site (Ref. 8).

3.2 SURFACE WATER

3.2.1 Climatology

The WEC landfill is located within the Piedmont Physiographic Province. Average rainfall near the facility is 44 inches, and mean annual lake evaporation is 42 inches. Average net annual precipitation is 2 inches. The rainy season in the Piedmont Physiographic Province occurs during the warm period from May to August (Ref. 11). The Athens area has a relatively mild climate. Temperatures average 42°F in January and 79°F in July (Ref. 12, p. 2). Average annual rainfall is 48 inches (Ref. 13, p. 43). There are two periods of peak rainfall, one in the late winter and one in mid-summer (Ref. 12, p. 5). Net annual precipitation is 2 inches (Ref. 13, pp. 43, 63). The 1-year, 24-hour rainfall is 3.25 inches (Ref. 14).

3.2.2 Overland Drainage

Surface water runoff follows two patterns at the WEC landfill. Rainwater falling on the west, south, east, and center portions of the site trends in an eastward direction toward a small, swampy basin. The swampy basin is less than an acre in size, and there are no routes for surface water migration from the basin. Surface water runoff for the remaining area of the site (north portion) drains in a northeastward direction to an oval-shaped slight depression. The depression is bounded by the higher ground of the landfilled area to the west, south, and east. A dirt road bounds the north portion of the depression. Surface water that collects in the swampy basin and depression would percolate down to groundwater (Ref. 8). However, during extremely heavy rainfall, surface water may migrate to a swampy region located approximately 1000 feet northeast of the landfill.

3.2.3 Potentially Affected Water Bodies

Water that collects in the swampy region flows in a northeasterly direction for approximately 0.3 mile and drains into the North Oconee River (Refs. 5, 8, Appendix A). The previously mentioned North Oconee River Park is located 2.0 stream miles downgradient from the confluence of the swamp and river (Ref. 8, Appendix A). Also, one of the water intakes for the municipal water supply is located 2.65 stream miles downgradient from the swamp and river confluence. Water is supplied to Athens and surrounding areas by surface water obtained from the North Oconee and Middle Oconee rivers (Ref. 15). The water obtained from the two intakes is treated and mixed prior to distribution. A third intake is located on Sandy Creek. Water is pumped from the intake to a reservoir. The water is allowed to settle and is used only during times when the North and Middle Oconee rivers are low.

The third intake is not located along the surface water migration pathway. The municipal system serves approximately 26,000 connections (Ref. 15).

3.3 GROUNDWATER

3.3.1 Hydrogeology

The site is located in the Piedmont Physiographic Province. The rocks underlying this province are massive igneous and metamorphic rocks of relatively low permeability (Ref. 16, pp. 4, 5).

The aquifer used in the study area can be characterized as a crystalline rock aquifer. In this aquifer, groundwater is stored in the unconsolidated material overlying the crystalline rock and within fractures that have formed in the crystalline rock (Ref. 16, p. 13). The residual soils (regolith) overlying bedrock are capable of storing large quantities of groundwater, and well yields are generally highest in areas that have a thick regolith that is saturated with water (Ref. 17, pp. 8-11).

The site is underlain by amphibolite interlayered with biotite schist and biotite gneiss. Wells intercepting contact zones between these rock units often have increased permeability as do wells that have intersect fault zones. Well yields range from 20 to 225 gallons per minute (gpm), with an average yield of 52 gpm. The average depth of wells in the Athens area is 246 feet with a typical casing depth of 69 feet (Ref. 17, plate 1). Few wells are completed to depths greater than 400 feet due to a decrease in the size and number of fractures within the rock below this depth (Ref. 17, p. 9).

Groundwater recharge occurs in topographic highs and groundwater discharge occurs in topographically low areas. The depth to the water table is also dependent on local topography. The water table may be at or near land surface in stream valleys. However, on steep hills or narrow ridges, the depth to the water table may be much greater (Ref. 17, p. 11).

The aquifer in the regolith is unconfined, and groundwater flow generally follows local topographic gradients (Ref. 17, p. 11). Groundwater flow within fractures of the underlying crystalline rock is influenced by fracture orientation. Wells penetrating deeper fracture systems may intercept groundwater that is under confined conditions.

3.3.2 Aquifer Use

There is very little use of groundwater in the study area. Three private wells were identified within the 3-mile site radius. The closest well is located 1 mile west of the site (Ref. 15).

3.4 SUMMARY OF POTENTIALLY AFFECTED POPULATIONS AND ENVIRONMENTS

The pathways of concern for the site include surface water, air, and onsite exposure. The groundwater pathway is not a concern due to the almost nonexistent use of the aquifer within the 4-mile site radius.

The air and onsite exposure pathways are the primary pathways of concern due to the possible presence of uncontained and contaminated soils. Potentially affected targets within a 4-mile site radius include residents, employees, and students. The population of residents within a 4-mile radius of the site is estimated at 49,884 (Ref. 10). Targets for onsite exposure include employees at the WEC facility and adjacent industrial properties and residents within a 1-mile radius of the site. However, the population within a 1-mile site radius is only 486 (Ref. 10, Appendix A).

Potential for site-related contaminant release to the surface water pathway is unlikely; however, it may be possible during periods of extremely heavy rainfall. Potentially affected targets along the extended surface migration pathway include those persons using the North Oconee River for recreational purposes and the population of 98,800 (26,000 x 3.8 per household) that is served by the Athens Water Department.

4.0 FIELD INVESTIGATION

4.1 GEOPHYSICAL SCREENING

4.1.1 Introduction

The purpose of geophysical screening was to delineate areas where hazardous waste was alleged to have been buried and to provide the sampling team with information that would aide in the selection of environmental sampling locations. To accomplish this task, a suspected disposal trench area was surveyed with a Proton Precision Magnetometer. A survey with an EM-31 Ground Conductivity Meter was also planned; however, this instrument was not functioning properly and could not be used.

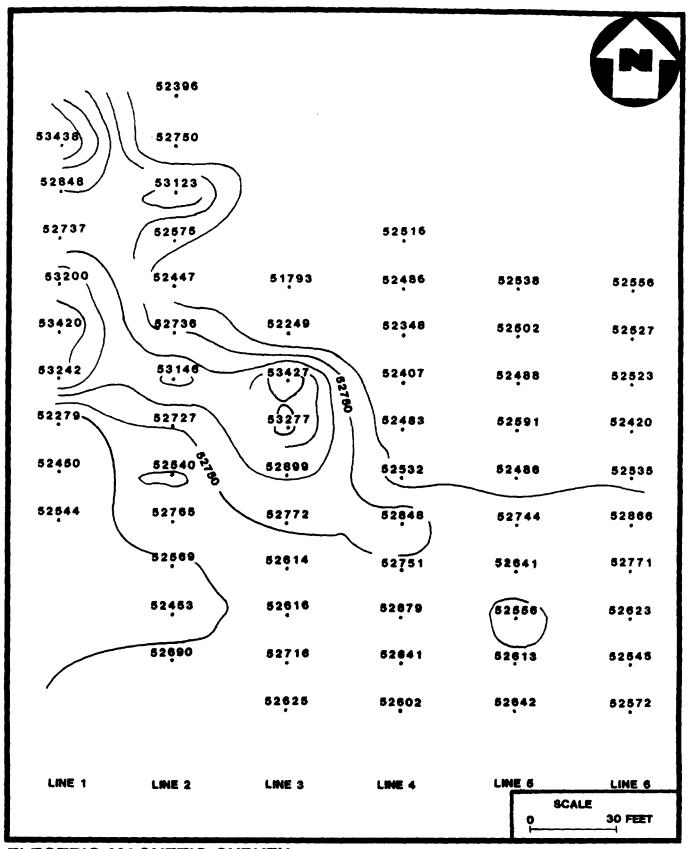
4.1.2 Methodology

The magnetometer was calibrated in an undisturbed area to the north of the disposal trench. After calibration, nine background magnetic readings were taken at 10-foot spacings along an old east-west trending logging road located south of the trench (Figure 3). The readings increased fairly uniformly from 52,588 gammas at the station farthest downhill to 52,676 gammas at the top of the hill. This variation in magnetic intensity was attributed to the presence of fill material that contained cobbles and boulders of higher conductivity metamorphic rock. The northwest portion of the grid (Figure 3), which appeared to be less disturbed, (the entire area has been logged) had magnetic readings that averaged around 52,500 gammas. This area did not appear to have any fill and is probably more representative of true background conditions (Ref. 18).

Six lines were traversed in a north-south direction. The distance between lines was 30 feet and stations along each line were at 15-foot intervals. Grid lines were surveyed using a compass and a 300-foot tape. Individual stations were marked with flagging (Ref. 18).

4.1.3 Results of the Geophysical Screening

Significant magnetic anomalies were detected within the area that was surveyed. Readings greater than 52,700 gammas were considered to be anomalous. These magnetic anomalies do not correspond with what appeared to be the trench boundary. Line 2 followed the approximate axis of



ELECTRIC MAGNETIC SURVEY
WESTINGHOUSE ELECTRIC CORPORATION LANDFILL
ATHENS, CLARKE COUNTY, GEORGIA

FIGURE 3



the visible trench. East of Line 6, a 30-foot by 30-foot area with magnetic readings greater than 53,000 gammas was detected. Two locations within this area were targeted for sampling. Another anomalous area to the north and west of Line 1 was found. Heavy brush and overgrowth prevented a systematic survey of this location. Figure 3 is a magnetic intensity contour map. Anomalous areas are shown in this figure. The road along the top of the ridge, about 30 feet west of Line 1 was surveyed with the magnetometer after the trucks were moved. No readings above background were detected along the road (Ref. 18).

The site is located in a rural area with no sources of interference for geophysical instruments. The magnetometer was effective in locating magnetic anomalies at this site. Some of the visually disturbed areas did not contain magnetic anomalies. Since some of the waste was reportedly buried in nonmetallic drums, the EM-31 Conductivity Meter would be effective in detecting disturbed areas that did not contain any metallic debris. An EM-31 Conductivity Meter may be used in the future to refine the boundaries of the waste burial area, should removal of the waste be necessary. Appendix D contains field data sheets, as well as additional information on the use and applications of the magnetometer and the conductivity meter.

4.2 SAMPLE COLLECTION

4.2.1 Sample Collection Methodology

All sample collection, sample preservation, and chain-of-custody procedures used during this investigation were in accordance with the standard operating procedures as specified in Sections 3 and 4 of the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

4.2.2 **Duplicate Samples**

Split groundwater samples were requested for groundwater by the WEC representatives. However, a background groundwater sample could not be obtained, and the remaining scheduled groundwater samples were canceled.

4.2.3 <u>Description of Samples and Sample Locations</u>

Nine environmental samples were collected for the investigation: four surface soil samples, three subsurface soil samples, and two sediment samples. Sample codes, descriptions, and locations are present in Table 1 and illustrated in Figures 4 and 5.

The surface soil samples, collected from 2 to 12 inches below land surface (bls), included one background sample and three samples from the landfilled area.

The three subsurface soil samples, including one background sample, were collected between 2 and 5 feet bls. One sample was collected from the landfilled area, and the remaining sample was collected east of the landfill at a location downgradient of surface water runoff.

One sediment sample was obtained from an unnamed intermittent creek northwest of the site and served as the background sample. A second sediment sample was collected at the confluence of the intermittent creek, which had developed into a swampy area, and the North Oconee River located northeast of the site.

4.3 SAMPLE ANALYSIS

4.3.1 Analytical Support and Methodology

All samples collected were analyzed under the Contract Laboratory Program (CLP) and analyzed for all parameters listed in the Target Compound List (TCL). Organic and inorganic analysis of soil samples was performed by Region IV Environmental Protection Agency analytical service laboratory located in Athens, Georgia.

All laboratory analyses and laboratory quality assurance procedures used during this investigation were in accordance with standard procedures and protocols as specified in the <u>Analytical Support</u> <u>Branch Operations and Quality Assurance Manual</u>; United States Environmental Protection Agency, Region IV, Environmental Services Division; revised June 1, 1985 or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the contract analytical laboratory program.

TABLE 1

SAMPLE CODES AND LOCATIONS, AND RATIONALE WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

Sample Code	Location and Rationale	Collection Time	Date	Depth (ft bls).	Remarks
WH-SS-01	Northwest of site from undisturbed area to establish background conditions	1515	05/03	-	-
WH-SB-01	Northwest of site from undisturbed area to establish background conditions	1525		5-6	-
WH-SD-01	Northwest of site from an intermittent stream upgradient of landfill to establish background conditions	1525	05/03	-	-
WH-SD-02	Confluence of stream and North Oconee River downgradient of landfill to detect contaminant migration off site	1815	05/03	-	-
WH-SS-02	East area of landfill taken at magnetic anomaly identified during geophysical survey to identify source of contamination	1020	05/04	-	-
WH-SB-02	East area of landfill taken at magnetic anomaly identified during geophysical survey to identify source of contamination	0950	05/04	5-6	-
WH-SS-03	Northwest area of landfill taken at magnetic anomaly identified during geophysical survey to identify source of contamination	1030	05/04	-	-
WH-SB-03	East area of landfill on west border of closed basin to identify contaminant migration from landfill	1150	05/04	2-3	-

WH - Westinghouse Electric

SS - Surface Soil SB - Subsurface Soil SD - Sediment

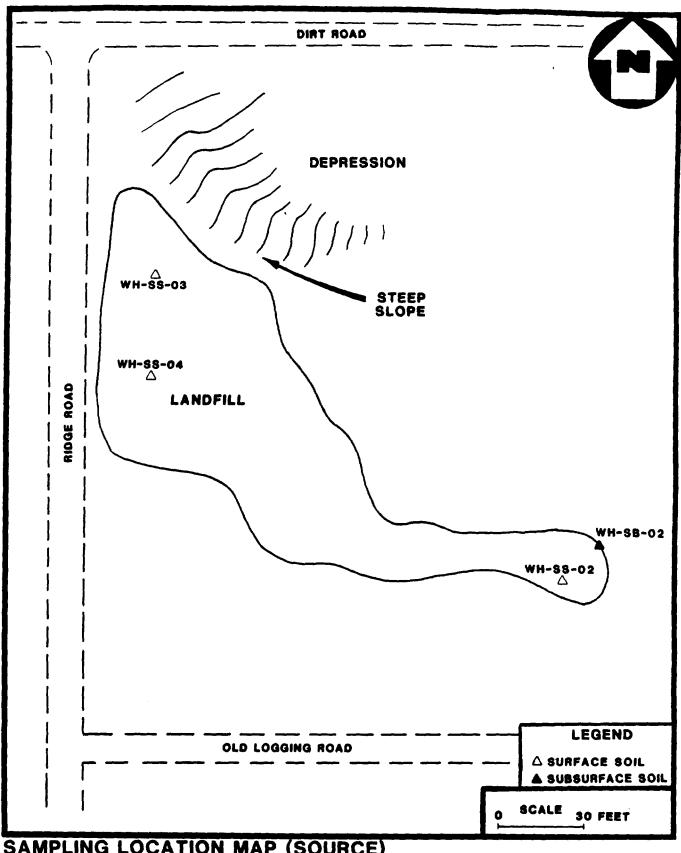
TABLE 1

SAMPLE CODES AND LOCATIONS, AND RATIONALE WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

Sample Code	Location and Rationale	Collection Time	Date	Depth (ft bls).	Remarks
WH-SS-04	Northwest area of landfill taken at magnetic anomaly identified during geophysical survey to identify source of contamination	1120	05/04	-	-

WH - Westinghouse Electric

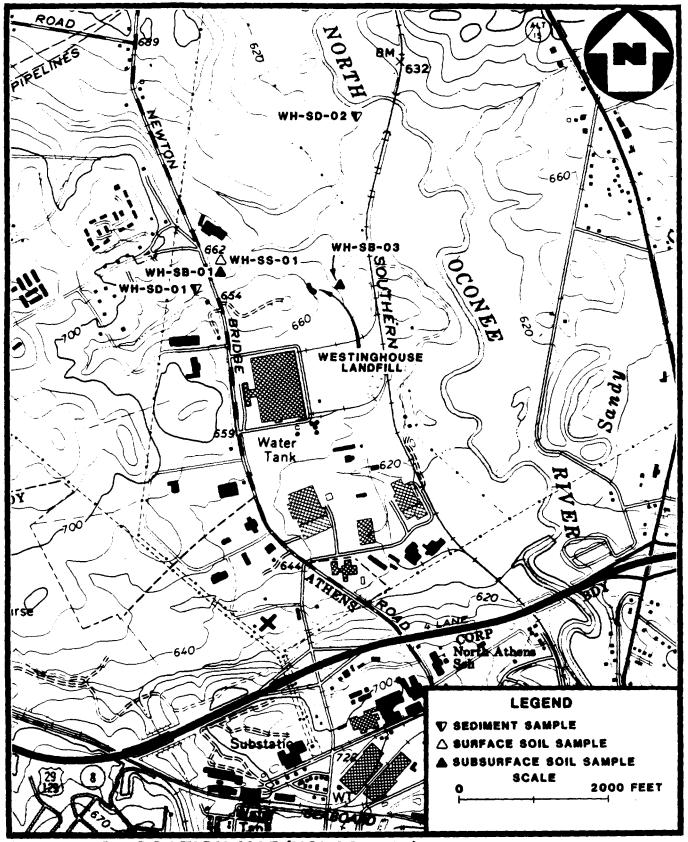
SS - Surface Soil
SB - Subsurface Soil
SD - Sediment



SAMPLING LOCATION MAP (SOURCE)
WESTINGHOUSE ELECTRIC
CORPORATION LANDFILL
ATHENS, CLARKE COUNTY, GEORGIA

FIGURE 4





SAMPLING LOCATION MAP (NONSOURCE)
WESTINGHOUSE ELECTRIC
CORPORATION LANDFILL
ATHENS, CLARKE COUNTY, GEORGIA



4.3.2 Presentation of Analytical Data Quality

All analytical data were subjected to a quality assurance review as described in the EPA, Environmental Services Division laboratory data evaluation guidelines. In the tables, some of the concentrations of the organic and inorganic parameters have been flagged with a "J". This indicates that the qualitative analysis was acceptable, but the quantitative value has been estimated. A few other compounds are flagged with an "N" indicating that they were detected based on the presumptive evidence of their presence. This means that the compound was tentatively identified, and its detection cannot be used as positive identification of its presence. The complete analytical data sheets are presented in Appendix B.

4.3.3 Presentation of Analytical Results

Throughout the following discussion of analytical results, the concentrations of some of the contaminants detected have been described as "significant". This means that the concentration was either three times that found in the background sample or it was three times the minimum quantitation limit (MQL).

Sample analyses detected several inorganic constituents in the soil and sediment samples. Significant concentrations of chromium, copper, lead, and zinc were found in samples WH-SS-03, WH-SS-04, and WH-SD-02.Cobalt was found in subsurface soil sample WH-SB-03 at 15 mg/kg (3 x MQL). Sample WH-SB-03 also contained 1300 mg/kg manganese (5 x background) and 0.1 mg/kg mercury (20 x MQL). Inorganic analytical results can be found in Tables 2, 3, and 4.

A large number of organic constituents were found in the surface soil samples, WH-SS-02, WH-SS-03, and WH-SS-04. Sample WH-SS-02 contained a total of 4 mg/kg (estimated) of substituted benzenes (tentatively identified), 200 mg/kg unidentified compounds, and more than 450 mg/kg polynuclear aromatic (PNA) compounds including 16 mg/kg phenanthrene (9.4 x MQL), 78 mg/kg fluoranthene (46 x MQL), 67 mg/kg pyrene (39 x MQL), 28 mg/kg benzo (a) anthracene (16 x MQL), 25 mg/kg chrysene (15 x MQL), 51 mg/kg benzo (b and/or k) fluoranthene (30 x MQL), and 24 mg/kg benzo-apyrene (14 x MQL). The other PNAs are shown as estimated concentrations, and some of them are tentatively identified. These compounds are components of lubricating oils.

SUMMARY OF INORGANIC ANALYTICAL RESULTS
SURFACE SOIL SAMPLES
WESTINGHOUSE ELECTRIC CORPORATION
ATHENS, CLARKE COUNTY, GEORGIA

	Background		Onsite		
PARAMETERS (mg/kg)	WH-55-01	WH-SS-02	WH-55-03	WH-55-04	
ALUMINUM	30.000	19.000	28.000	18,000	
ANTIMONY	-	-	·	100	
BARIUM	160	92	' 30	9000	
CALCIUM		2200		1800	
CHROME:M	'4	28	2400	8700	
COBALT	.5	5.9		55	
COPPER	7.5	51	23.000	9900	
RON	26 000	14,000	29.000	29.000	
LEAD	25	`40	10.000	90 0 0	
MAGNESIUM	8300	1900	3500	1000	
MANGANESE	800	320	500	210	
MERCURY	-	-	0.05	0.10	
NICKEL	1	6		58	
POTASSIUM	7800	1800	·		
VANADIUM	61	43	70	46	
ZINC	53	100	3000	10 000	
CYANIDE		0.25		1 2	
TITANIUM	1800	710	1100	170	
/TTRIUM	14	13			
STRONTIUM		8.2		120	

Material analyzed for but not detected above minimum quantitation limit

TABLE 3

SUMMARY OF INORGANIC ANALYTICAL RESULTS
SUBSURFACE SOIL SAMPLES
WESTINGHOUSE ELECTRIC CORPORATION
ATHENS, CLARKE COUNTY, GEORGIA

	Background	Onsite	Downgradient
PARAMETERS (mg/kg)	WH-SB-01	WH-5B-02	WH-SB-03
ALUMINUM	27,000	55 000	50 000
BARIUM	26	30	60
CALCIUM		580	290
CHROMIUM	29	34	56
COBALT		T .	15
COPPER	34	22	: 3
IRON	45.000	53.000	34.000
LEAD	29	42	21
MAGNESIUM	1100	2100	1200
MANGANESE	250	310	' 300
MERCURY			0.1
NICKEL	14		11
POTASSIUM	1100	2500	1200
MUIGANAV	120	150	81
ZINC	26	31	40
CYANIDE			0 33
TITANIUM	940	1900	1200
YTTRIUM	9.7		

Material analyzed for but not detected above minimum quantitation limit

SUMMARY OF INORGANIC ANALYTICAL RESULTS
SEDIMENT SAMPLES
WESTINGHOUSE ELECTRIC CORPORATION

ATHENS, CLARKE COUNTY, GEORGIA

	Background	Downgradient	
PARAMETERS (mg/kg)	WH-SD-01	WH-SD-02	
ALUMINUM	4400	46.000	
BARIUM	21	180	
CALCIUM	150	1200	
CHROMIUM	15	17	
COBALT		18	
COPPER	3.9	30	
RON	16 000	50 000	
LEAD	6 3	45	
MAGNESIUM	710	1900	
MANGANESE	150	4500	
POTASSIUM	820	1400	
VANADIUM	42	120	
ZINC	12	57	
TITANIUM	410	1000	
YTTRIUM	7 1	25	
STRONTIU M	-	12	

- Material analyzed for but not detected above minimum quantitation limit

Sample WH-SS-03 contained 130 mg/kg of fatty acids or fatty acid derivatives, tentatively identified with estimated concentrations ranging from 40 to 2000 mg/kg. Fatty acids are components of drawing and rolling compounds (greases). This sample also contained an estimated 80 ug/kg xylene (2 x MQL) and a total estimated concentration of 75 mg/kg of seven tentatively identified alkyl benzenes, which are components of kerosenes and other solvents. This sample also contained a significant concentration of PCBs, 1100 ug/kg Aroclor 1242 (18 x MQL) and an estimated 350 ug/kg tentatively identified Aroclor 1260 (5.6 x MQL) and smaller concentrations of Aldrin, Dieldrin, and 4,4'-DDD.

Sample WH-SS-04 contained a total of over 22,000 mg/kg (2.2%) of alkyl substituted benzenes, including 1100 mg/kg ethyl benzene (28,200 x MQL) and 7100 mg/kg xylenes (182,000 x MQL). These are solvents used by Westinghouse in the manufacturing process and listed as components of the waste streams. The other substituted benzenes, tentatively identified with estimated concentrations ranging from 10 to 6000 mg/kg, are components of kerosene and fuel oils. This sample contained a total concentration of 2400 mg/kg PNAs including 620 mg/kg naphthalene (365 x MQL) and 240 mg/kg 2-methylnaphthalene (141 x MQL), 6200 mg/kg of fatty acids, 560 mg/kg phenols (antioxidant, surfactant, wood preservative, and insecticide) including 180 mg/kg 4-nitrophenol (54 x MQL) and 180 mg/kg 2, 4-dinitrophenol (54 x MQL), 290 mg/kg nonaromatic hydrocarbons, and 2000 mg/kg unidentified compounds and petroleum product. The contaminants in this sample are components of kerosene, solvents, and lubricants.

Sediment sample WH-SD-02 contained an estimated 6000 ug/kg of hexadecanoic acid (3 x background) and an estimated 700 ug/kg of octadecanoic acid (tentatively identified) and petroleum product.

Results of subsurface soil samples revealed no analytical significant contamination of organic constituents.

Organic analytical results can be found in Tables 5, 6, and 7.

SUMMARY OF ORGANIC ANALYTICAL RESULTS SURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Background		Onsite	
PARAMETERS (ug/kg)	WH-55-01	WH-SS-02	WH-55-03	WH-55-04
PURGEABLE COMPOUNDS				
ETHYL BENZENE		-		1 100 000
(M- AND:OR P-)XYLENE	-	-	}	17 000.000
O-XYLENE		-	313	5 400,000
TRIMETHYLBENZENE	·	·	200JN	5,000,000JN/3
PETROLEUM PRODUCT		-	N	
EXTRACTABLE COMPOUNDS				
NAPHTHALENE				620,000
2-METHYLNAPHTHALENE				340,000
ACENAPHTHYLENE		28003	·	
4-N:TROPHENOL		-	-	180 000
2,4-DINITROPHENOL		-	-	180 000
PHENANTHRENE	-	16.000	-	13 0001
ANTHRACENE	-	5200)		
FLUORANTHENE		78,000	-	1
PYRENE		67.000	-	
BENZO(A)ANTHRACENE	1	28,000	-	
CHRYSENE	-	25.000	-	
BENZO(B AND/OR K)FLUORANTHENE		· 51,000	-	-
BENZO-A-PYRENE	-	24.000	-	
NDENO (1,2,3-CD) PYRENE	-	10,000	-	
DIBENZO(A,H)ANTHRACENE	-	3700J	-	1
BENZO(GHI)PERYLENE	·	9500J		-
HEXADECANOIC ACID	1000JN		2E61N	4E6JN
OCTADECANOIC ACID	-	•	700,000JN	1E6JN
DIMETHYLBUTENYLIDENE)BISBENZENE		2000JN	-	
METHYLPHENANTHRENE		2000JN		
CYCLOPENTAPHENANTHRENE	-	60 0 0JN	-	
PHENYLNAPHTHALENE		3000JN	1	

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Background		Onsite	
PARAMETERS (ug/kg)	WH-55-01	WH-55-02	WH-55-04	
BIS(BUTADIYNED:YL:BENZENE		2000JN		
BENZONAPHTHOFURAN		9000JN/3		
PHENANTHRENECARBONITRILE		30001N		1
METHYLFLUORANTHENE		20.000JN/4		
BENZOFLUORENE		N10008		
BENZONAPHTHOTHIOPHENE		7000JN		
BENZOFLUORANTHENE (NOTBORK)		40,000JN/2	-	
BENZOPHENANTHRENONE		2000JN		-
GIJA DIOKAJSCARTET	-		200,000JN	ML000.005
WE ⁺ HYLPPOPYLBENZENE	-	-	50001N	N1000,000
DIETHYLMETHYLBENZENE			90001N/2	100,000JN
DIMETHYLPROPYLIBENZENE	·		60001N	1E6JN/6
DIMETHYL(METHYLETHYL)BENZENE		-	10.0001N/2	1E6JN/6
ETHYLTRIMETHYLBENZENE	-		4000JN	NL000,0001
-EXANOIC ACID	·		60001N	
COPAENE	-	·	30001N	
HEPTADECANOL			40.000)N/2	
PENTADECANOIC ACID			40 000 IN	
ETRADECANAL	-		40.000 N	
HEPTADECANOIC ACID			NL000.001	
THYLDIMETHYLBENZENE	-	-	40,000JN/5	6E6JN/7
PROPYCYCLOHEXANE				Nt000'01
PROPYLBENZENE	-		1	30,000JN
ETHYL WETH YLBENZENE		·	1	200,000JN/3
PIMETHYLBENZENE	-		-	5/N1000.006
PROPENYLCYCLOHEXANE		·		200,000JN
DIHYDROINDENE	-	-	-	NL000,0001
METHYLPROPYL)BENZENE		-	1	20,0001N
BUTYLBENZENE			-	600,000JN

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Background	Onsite		
PARAMETERS (ug/kg)	WH-55-01	WH-SS-02	WH-55-03	WH-55-04
METHYLDECAHYDRONAPHTHALENE			-	20,000,10
PENTYCYCLOHEXANE				30.00010
ME*HYLDIHYDROINDENE				700 000N
D-ETHYLBENZENE				'Eñ/N
TETRADYDRONAPHTHALENE				000 000JN
((METHYLBENZYE)SULFONYE)PHENOL	T	·	-	N1000 00.
DIMETHYDIHYDROINDENE	-	-		200.900/N/2
D.WETHYL: METHYLPROPYL)BENZENE	-			90 000±N/2
1.METHYLNAPHTHALENE	-			50.0001N
DIMETHYUNAPHTHALENE		-		20 000JN
HEXAMETHYLOCTAHYDROINDENE	-	-	-	M1000 00.
BIS(DIMETHLETHYL)METHYLPHENOL	-			100.000JN
TRIMETHYLNAPHTHALENE		-		20,000JN/2
METHYL(METHYLETHYL)NAPHTHALENE	-	-		30,000JN
DIMETHYLPHENANTHRENE		-	-	30.000JN
HEXADECENOIC ACID		-	-	1E6JN
ETHYL(METHYLETHYL)BENZENE		-	-	2E6JN
METHYLPROPYLCYCLOHEXANE				50 000JN/2
PETROLEUM PRODUCT	-	-	N	Ν
UNIDENTIFIED COMPOUNDS/NO.		200.0001/2	2E6JN/11	2E61/10
PESTICIDE\PCB COMPOUNDS				
ALDRIN		-	48	23
DIELDRIN		-	431	66
4,4'-DDD (P,P'-DDD)		-	74	-
PCB-1242 (AROCLOR 1242)	-	-	100	·
PC3-1260 (AROCLOR 1260)			350JN	1

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SUBSURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Background	Onsite	Downgradient
PARAMETERS (ug/kg)	WH-S8-01	WH-58-02	WH-5B-03
EXTRACTABLE COMPOUNDS			
BENZO(B AND OR K)FLUORANTHENE		170,	
HEXADECANCIC 4C D	5000.N	-	5000uN
DIDA DIQUADACATO	N(002	-	7007N
TETRADECANOIC AC D			200;N
PESTICIDE PCB COMPOUNDS			
4,4'-00T (P,P'-00T)	-	8 1J	

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SEDIMENT SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

PARAMETERS (ug/kg)	Background	Downgradient
EXTRACTABLE COMPOUNDS	WH-SD-01	WH-SD-02
HEXADECANOIC ACID	2000)N	6000. :
OCTADECANO:C ACID		700JN
PETROLEUM PRODUCT		74

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

5.0 SUMMARY

The operations at the WEC facility included manufacturing and repairing overhead distribution transformers, a process that has been conducted since 1958. The results of this investigation revealed the presence of organic and inorganic contaminants, consistent with the WEC operations, in surface soil samples in excess of background conditions. Access to the site could be obtained by nearby residents, and the uncontained contaminated surface soils could be dispersed by the wind. Potentially affected targets include employees at the WEC facility and adjacent industrial properties and the 486 residents residing within a 1-mile radius of the site. Also, the population within the 4-mile site radius is estimated at 49,884.

The results of sediment sampling at the confluence of the swampy region and the North Oconee River revealed the presence of ten inorganic contaminants with significantly higher concentrations than background conditions. Although there were no visibly discernable pathways for surface water migration from the landfill, contaminant migration from the site may be possible during heavy rainfall. One of the municipal surface water intakes for the city of Athens is located 2.65 stream miles from the WEC landfill. The municipal system serves approximately 98,800 persons. Other possible explanations for the presence of the inorganic contaminants could be infiltration of surface water runoff to groundwater or the influence of industrial properties located north and adjacent to the swampy region.

The groundwater pathway is not a concern due to the lack of potentially affected targets. However, because the potentially affected population is large for the surface water pathway, and there are potentially affected targets for the surface water, air and onsite pathways, FIT 4 recommends a Listing Site Inspection, Phase I, be conducted at the WEC landfill.

REFERENCES

- 1. Potential Hazardous Waste Site Preliminary Assessment (EPA Form 2070-12) and attachments for Westinghouse Electric Corporation. Filed by Gilda Knowles, Georgia Department of Natural Resources, September 20, 1985.
- 2. EPA Notification of Hazardous Waste Site (EPA Form 8900-1) for Westinghouse Electric Corporation, Athens, Clarke County, Georgia. Filed by E.J. Fogel, Plant Manager, December 13, 1988.
- Samuel R. Pitts, Vice-President, Environmental Affairs, Westinghouse Electric Corporation, Pittsburg, Pennsylvania, letter to USEPA, December 20, 1988. Subject: EPA Notification of Hazardous Waste Site.
- 4. Will Slater, HWDMS, telephone conversation with R. Hoffmann, NUS Corporation, April 5, 1990. Subject: Interim status of WEC facility.
- 5. NUS Corporation Field Logbook No. F4-1378 for Westinghouse Electric Corporation, TDD No. F4-8903-40. Documentation of Screening Site Inspection, May 3-4, 1989.
- 6. Kenneth A. Lucas, "Preliminary Reassessment, Westinghouse Electric Corporation, Athens, Clarke County, Georgia," prepared for the Environmental Protection Agency, March 8, 1989.
- 7. Charles K. Gorham, Quality Assurance Supervisor, Westinghouse Electric Corporation, letter to George M. Saad, Environmental Engineer, Solid Waste Management Section, Georgia Environmental Protection Division, June 29, 1981. Subject: Liquid wastes generated at Westinghouse.
- 8. NUS Corporation Field Logbook No. F4-1349 for Westinghouse Electric Corporation, TDD No. F4-8903-40. Documentation of onsite reconnaissance, April 17, 1989.
- 9. Anne Spence, Athens, Georgia Chamber of Commerce, telephone conversation with R. Hoffmann, NUS Corporation, November 6, 1989. Subject: Population of Athens, Georgia.

- 10. U.S. Environmental Protection Agency, <u>Graphical Exposure Modeling Systems (GEMS) Data Base</u>, compiled from U.S. Bureau of the Census data (1980).
- 11. U.S. Department of Commerce, <u>Climatic Atlas of the United States</u> (Washington, D.C.: GPO, June 1968) Reprint: 1983, National Oceanic and Atmospheric Administration.
- 12. U.S. Department of Commerce, <u>Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1951-80 in Georgia</u> (National Climatic Center, Ashville, N.C. 1982), pp. 2, 5.
- 13. Dean B. Radtke, Charles W. Cressler, Howard A. Pearlman, Harry E. Blanebard, Jr., Keith W. McFadden, and Rebekah Brooks, Occurrence and Availability of Ground Water in the Athens Region, Northeastern Georgia, Water-Resources Investigations Report 86-4075 (U.S. Army Corps of Engineers, 1986), pp. 8-11, plate 1.
- 14. U.S. Department of Commerce, <u>Rainfall Frequency Atlas of the United States</u>, Technical Paper Number 40 (Washington, D.C.: GPO, 1961).
- 15. Rebecca Hoffmann, NUS Corporation; memo to file for Westinghouse Electric Corporation, August 12, 1989. Subject: Conversation with Roy Burns, Water Superintendent for Athens Water Department, concerning extent of water lines.
- 16. J.S. Clarke, S.A. Longsworth, C.N. Joiner, M.F. Peck, K.W. McFadden, and B.J. Milby, <u>Groundwater Data for Georgia</u>, Open File Report 87-367 (Georgia Department of Natural Resources Environmental Protection Division and Georgia Geologic Survey), pp. 4-5.
- 17: U.S. Geological Survey, <u>National Water Summary</u>: <u>Hydrologic Events, Selected Water Quality Trends, and Ground-Water Resources</u>, Water Supply Paper 2275 (1984), p. 162.
- 18. NUS Corporation Field Logbook No. F4-1377 for Westinghouse Electric Corporation, TDD No. F4-8904-04. Documentation of geophysical survey, May 3, 1989.

APPENDIX B

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM

EPA-REGION IV ESD. ATHENS, GA. 06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG . SOURCE: WESTINGHOUSE ELECT. .. CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1550 STOP: 00/00/00 CITY: ATHENS ST: GA ** ** STATION ID: SB-O1 BACKGROUND SUBSURFACE SOIL * * .. MG/KG ANALYTICAL RESULTS ANALYTICAL RESULTS MG/KG 5.00 SILVER 250U CALCIUM 15U ARSENIC 1100 MAGNESIUM NA BORON 45000 TRON 26 BARIUM 500U SCDIUM 2.5Ŭ BERYLLIUM 1100 POTASSIUM 2.50 CADMIUM 22 PERCENT MOISTURF 5. ŎŬ COBALT 29 CHROMIUM COPPER MOLYBDENUM NICKEL 5. OU 14 29 LEAD 15U ANTIMONY 200 SELENTUM 120 TIN 5.00 5.00 STRONTIUM 250 TELLURIUM 940 TITANIUM 500 THALLIUM 120 VANADIUM 9 7 VITRIUM ZINC ZIRCONIUM 26 ÑĀ O. OSU MERCURY 27000 ALUMINUM 250 MANGANESE

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM

EPA-REGION IV ESD, ATHENS, GA. 06/09/89 METALS DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1630 STOP: 00/00/00 PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL ** SOURCE: WESTINGHOUSE ELECT. STATION ID: SD-01 BACKGROUND SEDIMENT SOIL ** .. ** MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 2 OU SILVER 150 CALCIUM 6.0U ARSENIC 710 MAGNESIUM NA BORON 16000 TRON 21 BARIUM 200U SODIUM 1.OU BERYLLIUM 820 POTASSIUM 1. OU CADMIUM 20 PERCENT MOISTURE 2.0U COBALT 15 CHROMIUM 3.9 COPPER 2.00 MOLYBDENUM 4.00 NICKEL 6.3 LEAD 6. OU ANTIMONY 8. OU SELENIUM 5.00 TIN 2 OU STRONTIUM 100 TELLURIUM 410 TITANIUM 200 THALLIUM 42 VANADIUM 7.1 VI R LUM 12 ZINC NA ZIRCONIUM 0.05U MERCURY 4400 ALUMINUM 150 MANGANESE

REMARKS

REMARKS

FOOTNOTES

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS, GA.

06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA .. STATION ID: SS-01 BACKGROUND SURFACE SOIL COLLECTION START. 05/03/89 1530 STOP: 00/00/00 ** ** MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 3 OU SILVER 1500 CALCIUM 9.00 ARSENIC 8300 MAGNESIUM NA BORON 26000 TRON 160 BARIUM 3COU SODIUM 1.50 BERYLLIUM 7800 POTASSIUM 1.50 CADMIUM 19 PERCENT MOISTURE 15 COBALT 14 CHROMIUM 7.5 COPPER 3.00 MOLYBDENUM 6. OU NICKEL 25 LEAD 9.00 ANTIMONY 120 SELENTUM 7.50 TIN STRONTIUM TELLURIUM 3.00 15U 1800 TITANIUM 300 THALLIUM VANADIUM 61 14 YIIRIUM 53 ZINC NA ZIRCONIUM 0.050 MERCURY

REMARKS

30000 ALUMINUM 800 MANGANESE

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM
FPA-REGION IV ESD ATHENS CA

EPA-REGION IV ESD, ATHENS, GA. 06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS . . ST: GA . STATION ID: SB-02 SUBSURFACE SOIL #2 * * COLLECTION START: 05/04/89 1005 STOP: 00/00/00 * * ** * * *** MG/KG ANALYTICAL RESULTS MG/KG 580 CALCIUM ANALYTICAL RESULTS 7 OU SILVER 21U ARSENIC 2100 MAGNESIUM NA BORON 53000 TRON 90 BARIUM 700U SODIUM 3.50 BERYLLIUM 2500 POTASSIUM 3 50 7.00 CADMIUM 21 PERCENT MOISTURE COBALT 34 CHROMIUM 22 COPPER 7. OU MOLYBDENUM 14U NICKEL 42 LEAD 21U ANTIMONY 28U SELENTUM 18U TIN 7. OU STRONTIUM 350 TELLURIUM 1900 700 TITANIUM THALLIUM 150 VANADIUM 7 OU YTTRIUM 31 ZINC NA ZIRCONIUM O. OSU MERCURY 55000 ALUMINUM 310 MANGANESE

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/09/89 METALS DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1815 STOP: 00/00/00 PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL .. SOURCE: WESTINGHOUSE LECT.
STATION ID: SD-02 SEDIMENT SOIL #02 ** .. MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 6 OU SILVER 180 ARSENIC 1200 CALCIUM 1900 MAGNESIUM NA BORON 50000 TRON 180 BARIUM GOOU SODIUM 3.00 BERYLLIUM 1400 POTASSIUM 3. OU CADMIUM 45 PERCENT MOISTURE 18 COBALT 47 CHROMIUM 30 COPPER 6.00 MOLYBDENUM 12U NICKEL 45 LEAD 18U ANTIMONY 24U SELENIUM 150 TIN 12 STRONTIUM 300 TELLURIUM 1000 TITANIUM 600 THALLTUM 120 VANADIUM

REMARKS

25 57

YIIRIUM 57 ZINC NA ZIRCONIUM 0.05U MERCURY 46000 ALUMINUM 4500 MANGANESE

REMARKS

FOOTMOTES *A-ACTUAL VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT.
STATION ID: SS-02 SURFACE SOIL #02 .. CITY: ATHENS ST: GA * * COLLECTION START: 05/04/89 1020 STOP 00/00/00 * * * * MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 2 OU SILVER 2200 CALCTUM 6.0U ARSENIC 1900 MAGNESIUM BORON NA 14000 TRON BARTUM 92 200U SODIUM 1. OU BERYLLIUM 1800 POTASSIUM 1 OU CADMIUM 13 PERCENT MOISTURE 5.9 COBALT CHROMIUM COPPER 28 2. OU MOLYBDENUM 6.0 NICKEL 140 LEAD 6. OU ANTIMONY SELENIUM TIN 8. OU 5. OU 8.2 STRONTIUM 100 TELLURIUM 710 TITANIUM 20U THALLIUM 43 VANADIUM VITRIUM 13 100 ZINC NA ZIRCONIUM 0.05U MERCURY 19000 ALUMINUM 320 MANGANESE

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG .. SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA COLLECTION START. 05/04/89 1225 STOP: 00/00/00 .. ** STATION ID: SB-03 SUBSURFACE SOIL #03 ** ** MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 5.00 SILVER 290 CALCIUM 1200 MAGNESIUM 15U ARSENIC NA BORON 34000 TRON 60 BARIUM SOOU SCOTUM 2.50 BERYLLIUM 1200 POTASSIUM 2.50 CADMIUM 19 PERCENT MOISTURE 15 COBALT CHROMIUM 56 13 COPPER 5.00 MOLYBDENUM 11 NICKEL 21 LEAD 150 ANTIMONY 200 SELENIUM 120 TIN STRONTIUM 5. OU 250 1200 TELLURIUM TITANIUM 50Ŭ THALLTUM VANADIUM 81 5 OU YITRLUM 40 ZINC NA ZIRCONIUM MERCURY 0.1 50000 ALUMINUM

REMARKS

1300 MANGANESE

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM

EPA-REGION IV ESD, ATHENS, GA. 06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1035 STOP: 00/00/00 SOURCE: WESTINGHOUSE ELECT. ** STATION ID: SS-03 SURFACE SOIL #03 . ** MG/KG 500 SILVER ANALYTICAL RESULTS MG/KG 2500U CALCIUM ANALYTICAL RESULTS 150U ARSENIC 3500 MAGNESIUM NA BORON 29000 TRON 130 BARIUM 5000U SODIUM 25U BERYLLIUM 10000U POTASSIUM 25U CADMIUM 33 PERCENT MOISTURE 50U COBALT 2400 CHROMIUM 23000 COPPER 500 MOLYBDENUM 1000 NICKEL 10000 LEAD 1500 ANTIMONY 2000 SELENIUM 1200 TIN SOU STRONTIUM 250U TELLURIUM 1100 TITANIUM 5000 THALLIUM 70 VANADIUM SOU YITRIUM 3000 ZINC NA ZIRCONIUM 0.05 MERCURY 28000 ALUMINUM 500 MANGANESE

REMARKS

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM

EPA-REGION IV ESD, ATHENS, GA. 06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA . . STATION ID: SS-04 SURFACE SOIL #04 COLLECTION START: 05/04/89 1120 STOP: 00/00/00 ** .. MG/KG 250 SILVER ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 1800 CALCIUM 75U ARSENIC 1000 MAGNESIUM NA BORON 29000 TRON 9000 BARIUM 2500U SODIUM 120 BERYLLIUM 5000U POTASSIUM 12U CADMIUM 29 PERCENT MOISTURE 55 COBALT 8700 CHROMIUM 9900 COPPER 25U MOLYBDENUM 58 NICKEL 9000 LEAD ANTIMONY 100U SELENIUM 62U TIN 120 STRONTIUM 1200 TELLURIUM 170 TITANIUM 250U THALLIUM 46 VANADIUM 250 YITRIUM

REMARKS

10000 ZINC

NA 0.10 ZIRCONIUM

MERCURY 18000 ALUMINUM 210 MANGANESE

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. PROG ELEM: NSF COLLECTED BY: R YOUNG . . * * CITY: ATHENS ST: GA * * COLLECTION START: 05/03/89 1530 STOP: 00/00/00 * * STATION ID: SS-O1 BACKGROUND SURFACE SOIL * * . .

> RESULTS UNITS PARAMETER 0.25U MG/KG CYANIDE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1020 STOP: 00/00/00 4 4 . . * * * * STATION ID: SS-02 SURFACE SOIL #02 * * * * * *

RESULTS UNITS PARAMETER 0.25 MG/KG CYANIDE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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SPECIFIED ANALYSIS DATA REPORT

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PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA

* * STATION ID: SS-03 SURFACE SOIL #03 COLLECTION START: 05/04/89 1035 STOP: 00/00/00 * * 1 1

> RESULTS UNITS PARAMETER 0.30U MG/KG CYANIDE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS, GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT

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PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA STATION ID: SS-04 SURFACE SOIL #04 COLLECTION START: 05/04/89 1120 STOP: 00/00/00

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> RESULTS UNITS PARAMETER 1.2 MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT.
STATION ID: SB-01 BACKGROUND SUBSURFACE SOIL CITY: ATHENS ST: GA . . COLLECTION START: 05/03/89 1550 STOP: 00/00/00 . . * * * *

> RESULTS UNITS PARAMETER 0.26U MG/KG CYANIDE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT

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PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. . . STATION ID: SB-02 SUBSURFACE SOIL #2 COLLECTION START: 05/04/89 1005 STOP: 00/00/00 * *

> RESULTS UNITS PARAMETER 0.25U MG/KG CYANIDE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS, GA.

05/18/89

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SPECIFIED ANALYSIS DATA REPORT

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PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA SOURCE: WESTINGHOUSE ELECT. COLLECTION START: 05/04/89 1225 STOP: 00/00/00 STATION ID: SB-03 SUBSURFACE SOIL #03

RESULTS UNITS PARAMETER 0.33 MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG * * SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA STATION ID: SD-01 BACKGROUND SEDIMENT SOIL COLLECTION START: 05/03/89 1630 STOP: 00/00/00 * * . . * *

> RESULTS UNITS PARAMETER 0.25U MG/KG CYANIDE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

SPÉCIFIED ANALYSIS DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL
SOURCE: WESTINGHOUSE ELECT
STATION ID: SD-02 SEDIMENT SOIL #02

PROG ELEM: NSF COLLECTED BY: R YOUNG
CITY: ATHENS
ST. GA
COLLECTION START: 05/03/89 1815 STOP: 00/00/00

RESULTS UNITS PARAMETER
0.36U MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

06/13/89 PURGEABLE ORGANICS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY ATHENS SI: GA COLLECTION START: 05/03/89 1530 STOP 00/00/00 . . SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-01 BACKGROUND SURFACE SOIL . . UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS CHLOROMETHANE CIS 1.3-DICHLOROPROPENE VINYL CHLORIDE 390 3900 METHYL ISUBUTYL KETONE 390 BROMOMETHANE ວ້ອນ TOLUENE 390 CHLOROETHANE 390 TRANS-1.3 DICHLOROPROPENE 390 IRICHLOROFI UOROMETHANE 39Ú 1.1.2-IRICHLOROFTHANE 390 1.1-DICHLOROETHENE(1.1-DICHLOROETHYLENE) 390 TETRACHLOROETHENE (TETRACHLOROFTHYLENE) 3900 ACE TONE 1,3-DICHLOROPROPANE METHYL BUTYL KETONE 39u 390U CARBON DISULFIDE 3900 METHYLENE CHLORIDE TRANS-1,2-DICHLOROETHENE 1,1-DICHLOROETHANE 39Ü 390 DIBROMOCHLOROMETHANE 390 390 CHLOROBENZENE 1,1,1,2-TETRACHLOROETHANE ETHYL BENZENE 39U 39U 3900 VINYL ACETATE 390 CIS-1, 2-DICHLOROETHENE 390 39ับ (M- AND/OR P-)XYLENE 39U 2.2-DICHLOROPROPÂNE 39U 39U O-XYLENE 3900 METHYL ETHYL KETONE STYRENE **BROMOCHLOROMETHANE** 39U 39Ú BROMOFORM CHLOROFORM 390 390 BROMOBENZENE žŠŰ 390 1,1,1-TRICHLOROE IHANE 1,1,2,2-TETRACHLOROETHANE 1,2,3-TRICHLOROPROPANE 1.1 DICHLOROPROPENE **39**0 390 CARBON TETRACHLORIDE 39Ú O-CHLURUTULUENE 1,2-DICHLOROETHANE 390 39U P-CHLOROTOLUENE 1.3-DICHLOROBENZENE 390 BENZENE 390 390 TRICHLOROFTHENE(INICHLOROETHYLENE) 1.4-DICHLOROBENZENE 1,2-DICHLOROBENZENE 390 1,2-DICHLOROPROPANE 390 390 DIBROMOMETHANE PERCENT MOISTURE 390 19.0

REMARKS

390

BROMODICHLOROMETHANF

REMARKS

*** PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL ** SOURCE: WESTINGHOUSE ELECT. ** STATION ID: SS-02 SURFACE SOIL #02 ** COLLECTION START: 05/04/89 1020 STOP: 00/00/00	* ***
**	* * * * * *
UG/KG	

REMARKS

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
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	RGANICS DATA REPORT	200, 11112		00,00,00
** PROJEC ** SOURCE ** STATIO	T NO. 89-400 SAMPLE NO. 34901 SAMPLE : WESTINGHOUSE ELECT. NN ID: SS-03 SURFACE SOIL #03	TYPE: SOIL PROG ! CITY: COLLEC	ELEM: NSF COLLECTED BY: R YOUN ATHENS ST: GA CTION START: 05/04/89 1035 ST	G ** TP: 00/00/00 **
UG/KG	ANALYTICAL RESULTS	UG/KG	ANALYTICAL RESULTS	
1600U C 160U M 160U T 160U 1 1600U C 1600U C 1600U M 160U B 160U C 160U 1 160U 1 160U 1 160U 1 160U B 160U T 160U B	HLOROMETHANE INVL CHLORIDE ROMOMETHANE RICHLOROFI VOROMETHANE , 1-DICHLOROETHENE(1,1-DICHLOROETHYLENE) CETONE ARBON DISULFIDE RANS-1,2-DICHLOROETHENE , 1-DICHLOROETHANE INVL ACETATE IS-1,2-DICHLOROETHENE , 2-DICHLOROETHENE , 2-DICHLOROETHENE , 1-DICHLOROETHENE , 1-DICHLOROETHENE , 2-DICHLOROETHENE , 2-DICHLOROETHANE HETHYL ETHYL KETONE ROMOCHLOROMETHANE HLOROFORM , 1,1-TRICHLOROETHANE , 1-DICHLOROETHANE , 1-DICHLOROETHANE ARBON TETRACHLORIDE , 2-DICHLOROETHANE ROMOCHLOROETHANE RICHLOROETHANE RICHLOROETHANE RICHLOROPROPANE RICHLOROPROPANE RICHLOROETHANE RICHLOROPROPANE RICHLOROETHANE RICHLOROETHANE RICHLOROETHANE RICHLOROETHANE	1600 16000	CIS-1,3-DICHLOROPROPENE MFTHYL ISOBUTYL KETONE TOLUENE TRANS-1,3-DICHLOROPROPENE 1.1,2-TRICHLOROETHANE TETRACHLOROETHENE(TETRACHLOROET 1,3-DICHLOROPROPANE METHYL BUTYL KETONE DIBROMOCHLOROMETHANE CHLOROBENZENE 1,1,1,2-TETRACHLOROETHANE ETHYL BENZENE (M- AND/OR P-)XYLENE O-XYLENE STYRENE BROMOFORM BROMOFORM BROMOFORM BROMOBENZENE 1,1,2,3-TRICHLOROPROPANE O-CHLOROTOLUENE 1,3-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 1,2-DICHLOROBENZENE 1,2-DICHLOROBENZENE 1,2-DICHLOROBENZENE 1,2-DICHLOROBENZENE 1,2-DICHLOROBENZENE PERCENT MOISTURE	HYLENE)

REMARKS

REMARKS

^{***}FOOTNOTES***

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/30/89

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG FLEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS . . ST: GA * * STATION ID: SS-03 SURFACE SOIL #03 COLLECTION START: 05/04/89 1035 STOP: 00/00/00 * * * * * * * * * * ***

ANALYTICAL RESULTS UG/KG

TRIME I HYLBENZENE 200JN PETROLEUM PRODUCT N

FOOTNOTES *A-ACTUAL VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

PURGEAR	LE ORGANICS DATA REPORT EPA-REGION	LYSIS MANAGEMEN IV ESD, ATHENS	T SYSTEM GA. O6/13/89 M: NSF COLLECTED BY: R YOUNG HENS ON START. 05/04/89 1120 STOP: 00/00/00 ANALYTICAL RESULTS S 1,3-DICHLOROPROPENE THYL ISOBU!YL KETONE LUENC ANS-1,3 DICHLOROPROPENE 1.2-IKICHLOROPROPENE 1.2-IKICHLOROPROPENE 1.7-IKICHLOROPROPENE
** PR(OJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE		06/13/89
** STA	ATION ID: SS-04 SURFACE SOIL #04	PROG ELI CITY: A	M: NSF COLLECTED BY: R YOUNG
*** * *	****	COLLECT	ON START: 05/04/89 1120 STOP: 00/00/00
06/8	ANALYTICAL RESULTS	* * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *
930000U	CHLOROMETHAND VINVI CHIODIDE	03000011 04	ANALYTICAL RESULTS
930000U 930000U	BROMOMETHANE CULOROSTUANE	9.3 <u>560</u> MF	5 1,3-DICHLOROPROPENE THYL ISCHU!YL KETONE
9300000	TRICHLOROFI UOROME THANE	9300000 TR	LUENE ANS-1.3 DICH OROBRODENE
9.3E6U 9.3E6U	ACE TONE ACE TONE	930000U 1 930000U TÉ	1.2-IKICHLOROFTHANE TRACHLOROFTHANE
900000	CARBON DISULFIDE METHYLENE CHLORIDE	930000U 1 9.3E6U MF	TRACHLOROETHENE (TETRACHLORUETHYLENE) 3-DICHLOROPROPANE THYL BUTYL KETONE
930000U 930000U	!RANS-1, 2-DICHLOROETHENE 1,1-DICHLOROETHANE	930000U DI 930000U CH	BROMOCHLOROMETHANE LOROBENZENE
9.3F6U 930000U	VINYL ACETATE CIS-1, 2-DICHI OROFTHENE	1.9E6U 1.	1.1.2-TFTRACHI ODGETUANE
930000U 9. 3F6U	2.2-DICHLOROPROPANE METHYL FTHYL KETONE	1.7E7 (M 5.4E6 0-	HYL BENZENE TAND/OR P-)XYLENE
930000U 930000U	BROMOCHLOROME THANE	1.9E6U ST	KYLENE YRENE
930000U 930000U	1, 1, 1-TRICHLORUE THANE	930000U BR	OMÔFÔRM OMOBENZENE
930000U 930000U	CARBON TETRACHLORIDE	9300000 1 1.9E60 1,	1.2.2—TETRACHLOROETHANE 2.3—TRICHLOROEDODANS
9300000 9300000	BENZENE TRICKLUS DE STANDE	1.9E6U 0-0	MEURUTULUENE HLOROTOLUENE
930000U 930000U	1,2-DICHLOROPROPANE	1 9E6U 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TOTCHLOROBENZENE I-DICHIGROBENZENE
9300000	ACETONE CARBON DISULFIDE METHYLENE CHLORIDE TRANS—1,2—DICHLOROETHENE 1,1—DICHLOROETHANE VINYL ACETATE CIS—1,2—DICHLOROETHENE 2,2—DICHLOROPANE METHYL ETHYL KETONE BROMOCHLOROMETHANE CHLOROFORM 1,1,1—TRICHLOROETHANE 1,1 DICHLOROPROPENE CARBON TETRACHLORIDE 1,2—DICHLOROETHANE BENZENE TRICHLOROFTHENE(fRICHLOROETHYLENE) 1,2—DICHLOROPROPANE DIBROMOMETHANE BROMODICHLOROMETHANE BROMODICHLOROMETHANE	1.9E6U 1.2 40.0 PE	-DICHLOROBENZENE CENT MOISTURE
			MOTO I AND

REMARKS

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS, GA.

06/13/89

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. STATION 1D: SS-04 SURFACE SOIL #04 PROG FLEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA * * CULLECTION START: 05/04/89 1120 STOP: 00/00/00 ** ** ** * *

ANALYTICAL RESULTS UG/KG

5EGUN TRIMETHYLBENZENE (3 ISOMERS)

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

^{*}R-OC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

06/08/89

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EXTRACTABLE ORGANICS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL
SOURCE: WESTINGHOUSE ELECT.
STATION ID: SS-01 BACKGROUND SURFACE SOIL
PROG ELEM: NSF COLLECTED BY: R YOUNG
CITY: ATHENS SI: GA
COLLECTION START. 05/03/89 1530 STOP: 00/00/00
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**
    UG/KG ANALYTICAL RESULTS
    UG/KG
                        ANALYTICAL RESULTS
   1700U BIS(2 CHLOROETHYL) FTHER
1700U BIS(2-CHLOROISOPROPYL) ETHER
                                                                          1700U FLUORANTHENE
1700U PYRFNE
   1700U N-NITROSODI-N-PROPYLAMINE
                                                                          17000 BENZYL BUTYL PHTHALATE
   1700U HEXACHLOROETHANE
                                                                          1/000 3,3'-DICHLOROBENZIDINE
   1700U NITROBENZENE
                                                                          1700U BÉNZO(A)ANTHRACENE
   1700U ISOPHORONE
                                                                          1700U CHRYSENE
                                                                                                                                    . *:
   1/00U BIS(2-CHLOROETHOXY) METHANE
1/20U 1,2,4-TRICHLOROBENZENE
                                                                          1700U BIS(2-ETHYLHEXYL) PHTHALATE
   1700U NAPHTHALENE
                                                                          1700U BENZO(B AND/OR K)FLUORANTHENE--
1700U BENZO-A-PYRENE
   1700U 4-CHLOROANILINE
                                                                          1700U INDENO (1,2,3-CD) PYRENE
1700U DIBENZO(A,H)ANTHRACENE
1700U BENZO(GHI)PERYLENE
   1700U HEXACHLOROBUTADIENE
   1700U 2-METHYLNAPHTHALENE
          HEXACHLOROCYCLOPENTADIENE (HCCP)
   1 700U
           2-CHLORONAPHTHALENE
   1 700U
                                                                          17000
                                                                                 PHENOL
   1700U 2-NITROANILINE
                                                                                 2-CHLOROPHENOL
                                                                          1 700U
   1700U DIMETHYL PHTHALATE
                                                                          3300U BENZYL ALCOHOL
   1700U ACENAPHTHYLENE
1700U 2,6-DINITROTOLUENE
                                                                           1 700U
                                                                                 2-METHYLPHENOL
                                                                          1 700U
                                                                                 (3-AND/OR 4-)METHYLPHENOL
   1700U 3-NITROANILINE
                                                                           1700U
                                                                                 2-NITROPHENOL
   1700U ACENAPHTHENE
                                                                           1700U 2.4-DIMETHYLPHENOL
   1700U DIBENZOFURAN
                                                                          3300U BENZOIC ACID
   1700U 2.4-DINITROTOLUENE
1700U DIETHYL PHTHALATE
                                                                           1700U 2,4-DICHLOROPHENOL
                                                                          1700U 4-CHLORO-3-METHYLPHFNOL
1700U 2,4,6-TRICHLOROPHENOL
1700U 2,4,5-TRICHLOROPHENOL
   1700U FLUORENE
   1700U 4-CHLOROPHENYL PHENYL ETHER
                                                                           3300U 2.4-DINITROPHENOL
   1700U 4-NITROANILINE
   1700U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
                                                                           3300U 4-NITROPHENOL
   1700U 4-BROMOPHENYL PHENYL EIHER
1700U HEXACHLOROBENZENE (HCB)
                                                                          1700U 2.3.4.6-TETRACHLOROPHENOL
3300U 2-METHYL-4.6-DINITROPHENOL
   1700U PHENANTHRENE
                                                                          3300U PENTACHLOROPHENOL
   1700U ANTHRACENE
                                                                             19 PERCENT MOISTURE
   1700U DI-N-BUTYLPHTHALATE
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REMARKS

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

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PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT.

STATION ID: SS-01 BACKGROUND SURFACE SOIL COLLECTION START: 05/03/89 1530 STOP: 00/00/00 **

ANALYTICAL RESULTS UG/KG

1000-IN HEXAUECANOIC ACID

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED, THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE, COMPOUND MAY OR MAY NOT BE PRESENT, RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

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EXTRACTABLE ORGANICS DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL

** SOURCE: WESTINGHOUSE ELECT.

** STATION ID: SS-02 SURFACE SOIL #02

** COLLECTION START: 05/04/89 1020 STOP: 00/00/00 ***
                                                                                                                                                                                                                 **
UG/KG ANALYTICAL RESULTS
                                                                                                               UG/KG
                                                                                                                                             ANALYTICAL RESULTS
   16000U BIS(2-CHLOROETHYL) ETHER
16000U BIS(2-CHLOROISOPROPYL) ETHER
                                                                                                               78000 FLUORANTHENE
67000 PYRENE
   16000U N-NITROSODI-N-PROPYLAMINE
                                                                                                              16000U BENZYL BUTYL PHTHALATE
                                                                                                              16000U 3.3'-DICHLOROBENZIDINE
   16000U NITROBENZENE
16000U ISOPHORONE
16000U BIS(2-CHLOROETHOXY) METHANE
                                                                                                               28000 BENZO(A)ANTHRACENE
                                                                                                             25000 CHRYSENE
16000U BIS(2-ETHYLHEXYL) PHTHALATE
16000U DI-N-OCTYLPHTHALATE
51000 BENZO(B AND/OR K)FLUORANTHENE
                                                                                                                                                                                                      . 10
   16000U 1,2,4-TRICHLOROBENZENE
   16000U NAPHTHALENE
  16000U NAPHTHALENE
16000U 4-CHLOROANILINE
16000U HEXACHLOROBUTADIENE
16000U 2-METHYLNAPHTHALENE
16000U 2-CHLOROAPHTHALENE
16000U 2-CHLORONAPHTHALENE
16000U 2-NITROANILINE
16000U DIMETHYL PHTHALATE
2800J ACENAPHTHYLENE
16000U 2 6-DINITROTOLUENE
                                                                                                               24000 BENZO-A-PYRENE
                                                                                                              10000J INDENO (1,2,3-CD) PYRENE
3700J DIBENZO(A,H)ANTHRACENE
9500J BENZO(GHI)PERYLENE
                                                                                                              160000
                                                                                                                          PHENOL
                                                                                                             16000U 2-CHLOROPHENOL
31000U BENZYL ALCOHOL
16000U 2-METHYLPHENOL
16000U (3-AND/OR 4-)METHYLPHENOL
16000U 2-NITROPHENOL
   16000U 2,6-DINITROTOLUENE
16000U 3-NITROANILINE
                                                                                                              16000U 2.4-01ME1HYLPHENOL
31000U BENZOIC ACID
16000U 2.4-DICHLOROPHENOL
    160000 ACENAPHTHENE
   16000U DIBENZOFURAN
   16000U 2,4-DINITROTOLUENE
                                                                                                             16000U 2,4-DICHLOROPHENOL
16000U 4-CHLORO-3-METHYLPHENOL
16000U 2,4,6-TRICHLOROPHENOL
31000U 2,4-DINITROPHENOL
31000U 4-NITROPHENOL
31000U 2,3,4,6-TETRACHLOROPHENOL
31000U 2-METHYL-4,6-DINITROPHENOL
31000U PENTACHLOROPHENOL
   16000U DIETHYL PHTHALATE
   16000U FLUORENE
   16000U 4-CHLOROPHENYL PHENYL ETHER
16000U 4-NITROANILINE
16000U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
16000U 4-BROMOPHENYL PHENYL ETHER
   16000U HEXACHLOROBENZENE (HCB)
     5200J ANTHRACENE
                                                                                                                     14 PERCENT MOISTURE
   16000U DI-N-BUTYLPHTHALATE
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REMARKS

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROJECT NO 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL PROG ELFM: NSF COLLECTED BY: R YOUNG CITY: ATHENS * * SOURCE: WESTINGHOUSE ELECT ST: GA * * STATION ID: SS-02 SURFACE SOIL #02 CULLECTION START: 05/04/89 1020 STOP: 00/00/00 ** ** * * * *

ANALYTICAL RESULTS UG/KG

(DIMETHYLBUTENYLIDENE)BISBENZENE - -2000JN 2000JN METHYLPHENANTHRENE CYCLOPENTAPHENANTHRENE 6000JN 3000JN PHENYL NAPHTHAL FNE BIS(BUTADIYNEDIYL)BENZENE BENZONAPHTHOFURAN (3 ISOMERS) 2000JN 9000JN 3000JN PHENANTHRENECARBONITRILE METHYLFLUORANTHENE (4 ISOMERS) 20000JN 8000JN BENZOFLUORENE BENZONAPHTHOTHIOPHENE 7000JN BENZOFLUORANTHENE (NOT B OR K) (2 ISOMERS)
2 UNIDENTIFIED COMPOUNDS 40000JN 200000J BENZOPHENANTHRENONE 2000JN

^{*}NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *A-AVERAGE VALUE *NA-NOT ANALYZED

^{*}K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE ERRATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

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EXTRACTABLE ORGANICS DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL

** SOURCE: WESTINGHOUSE ELECT.

** STATION ID: SS-03 SURFACE 5011 #03

** COLLECTION START: 05/04/89 1035 STOP: (N)/00/00 ***
ANALYTICAL RESULTS
                                                                                                           UG/KG
                                                                                                                                      ANALYTICAL RESULTS
   20000U BIS(2 CHLOROETHYL) ETHER
                                                                                                          20000U FLUORANTHENE
   20000U BIS(2-CHLOROISOPROPYL) ETHER N-NITROSODI-N-PROPYLAMINE
                                                                                                          20000U PYRENE
                                                                                                          20000U BENZYL BUTYL PHTHALATE
   20000U HEXACHLOROETHANE
20000U NITROBENZENE
                                                                                                          20000U 3,3'-DICHLOROBENZIDINE
20000U BENZO(A)ANTHRACENF
   20000U ISOPHORONE
                                                                                                          20000U CHRYSENE
                                                                                                                                                                                               P
  20(X)OU BIS(2-CHLOROETHOXY) METHANE
20000U 1,2,4-TRICHLOROBENZENE
NAPHTHALENE
20000U 4-CHLOROANILINE
20000U HEXACHLOROBUTADIENE
20000U 2-METHYLNAPHTHALENE
20000U HEXACHLOROCYCLOPENTADIENE (HCCP)
20000U 2-CHLORONAPHTHALENE
20000U 2-NITROANILINE
20000U DIMETHYL PHTHALATE
20000U ACENAPHTHYLENE
20000U 2,6-DINITROTOLUENE
20000U 3-NITROANILINE
20000U DIBENZOFURAN
20000U DIBENZOFURAN
20000U 2,4-DINITROTOLUENE
   200XXXV B15(2-CHLOROETHOXY) METHANE
                                                                                                          20000U BIS(2-ETHYLHEXYL) PHTHALATE
                                                                                                          20000U DI-N-OCTYLPHTHALATE
                                                                                                          20000U BENZO B AND/OR K) FLUORANTHENE
20000U BENZO-A-PYRENE
                                                                                                          20000U INDENO (1,2,3-CD) PYRENE
20000U DIBENZO(A,H)ANTHRACENE
                                                                                                          20000U BENZO(GHI)PERYLENE
                                                                                                          20000U PHENOL
20000U 2-CHLO
                                                                                                          20000U 2-CHLOROPHENOL
40000U BENZYL ALCOHOL
20000U 2-METHYLPHENOL
                                                                                                          20000U (3-AND/OR 4-)METHYLPHENOL
                                                                                                          20000U 2-NITROPHENOL
20000U 2,4-01ME1HYLPHENOL
40000U BENZOIC ACID
   20000U 2,4-DINITROTOLUENE
20000U DIETHYL PHTHALATE
20000U FLUORENE
                                                                                                          20000U 2,4-DICHLOROPHENOL
                                                                                                          20000U 4-CHLORO-3-METHYLPHENOL
20000U 2,4,6-TRICHLOROPHENOL
20000U 2,4,5-TRICHLOROPHENOL
40000U 2,4-DINITROPHENOL
   20000U 4-CHLOROPHENYL PHENYL ETHER
20000U 4-NITROANILINE
   20000U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
20000U 4-BROMOPHENYL PHENYL EIHER
                                                                                                          40000U 4-NITROPHENOL
                                                                                                          20000U 2,3,4,6-TETRACHLOROPHENOL
   20000U HEXACHLOROBENZENE (HCB)
20000U PHENANTHRENE
                                                                                                          40000U 2-METHYL-4.6-DINITROPHENOL
40000U PENTACHLUROPHENOL
    20000U ANTHRACENE
                                                                                                                33 PERCENT MOISTURE
   20000U DI-N-BUTYLPHTHALATE
```

REMARKS

REMARKS

^{*}A-AVERÂGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL
                                          PROG ELEM: NSF COLLECTED BY: R YOUNG
..
                                                                              * *
  SOURCE: WESTINGHOUSE ELECT.
                                          CITY: ATHENS
                                                           ST: GA
                                                                              **
                                          CITY: ATHENS ST: GA
COLLECTION START: 05/04/89 1035 STOP: 00/00/00
  STATION ID: SS-03 SURFACE SOIL #03
. .
                                                                              **
* *
                                                                              * *
ANALYTICAL RESULTS UG/KG
               5000JN
                     METHYLPROPYLBENZENE
```

DIETHYLMETHYLBENZENE (2 ISOMERS) 9000JN (DIMETHYLPROPYL) BENZENE 6000JN DIMETHYLIMFTHYLETHYL)BENZENE (2 ISOMERS) 10000JN ETHYLTRIMETHYLBENZENE 4000JN 6000JN HEXANOIC ACID COPAENE
HEPTADECANOL (2 ISOMERS)
TETRADECANOIC ACID
PENTADECANOIC ACID 3000JN 40000JN 200000JN 40000JN 40000JN TETRADECANAL HEXADECANOIC ACID
11 UNIDENTIFIED COMPOUNDS 2E6JN 2E6J 100000JN HEPTADECANOIC ACID OCTADECANOIC ACID 700000JN PETROLEUM PRODUCT 40000JN ETHYLDIMETHYLRENZENE (5 ISOMERS)

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE, COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

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EXTRACTABLE ORGANICS DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG **

** SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS S1: GA **

** STATION ID: SS-04 SURFACE SOIL #04 COLLECTION START: 05/04/89 1120 STOP: 00/00/00 **
                                                                                                                                                                   . .
UG/KG
     UG/KG
                              ANALYTICAL RESULTS
                                                                                                              ANALYTICAL RESULTS
  88000U BIS(2 CHLOROETHYL) ETHER
88000U BIS(2-CHLOROISOPROPYL) ETHER
88000U N-NITROSODI-N-PROPYLAMINE
                                                                                      88000U FLUORANTHENE
88000U PYRENE
BENZYL BUTYL PHTHALATE
   880000 HEXACHLOROETHANE
                                                                                      88000U 3.3'-DICHLOROBENZIDINE
                                                                                      88000U BENZO(A)ANTHRACENE
   88000U NITROBENZENE
                                                                                      880000
   BBOOOU ISOPHORONE
                                                                                                CHRYSENE
                                                                                                                                                           .. 1
                                                                                      88000U BIS(2-ETHYLHEXYL) PHTHALATE
88000U DI-N-OCTYLPHTHALATE
88000U BENZO(B AND/OR K)FLUORANTHENE
  8800X)U BIS(2-CHLOROETHOXY) METHANE
88000U 1,2,4-TRICHLOROBENZENE
   620000 NAPHTHALENE
   88000U 4-CHLOROANILINE
                                                                                      88000U BENZO-A-PYRENE
                                                                                                INDENO (1,2,3-CD) PYRENE
DIBENZO(A, H)ANTHRACENE
   88000U HEXACHLOROBUTADIENE
                                                                                      88000U
   240000 2-METHYLNAPHTHALENE
                                                                                      880000
            HEXACHLOROCYCLOPENTADIENE (HCCP)
                                                                                      880000
                                                                                                BENZO(GHI)PERYLENE
   88000U
   88000U 2-CHLORONAPHTHALENE
                                                                                      00000V
                                                                                                PHENOL
                                                                                      880000
   88000U 2-NITROANILINE
                                                                                                 2-CHLOROPHENOL
                                                                                                 BENZYL ALCOHOL
                                                                                     1800000
   88000U DIMETHYL PHTHALATE
                                                                                      880000
                                                                                                 2-METHYLPHENOL
   88000U ACENAPHTHYLENE
  88000U 2,6-DINITROTOLUENE
88000U 3-NITROANILINE
                                                                                                 (3-AND/OR 4-)METHYLPHENOL
                                                                                      88000U
                                                                                      88000U
88000U
                                                                                                 2-NITROPHENOL
                                                                                                2,4-DIMETHYLPHENOL
BENZOIC ACID
   88000U ACENAPHTHENE
   88000U DIBENZOFURAN
                                                                                     1800000
   88000U 2.4-DINITROTOLUENE
88000U DIETHYL PHTHALATE
                                                                                      880000 2,4-DICHLOROPHENOL
                                                                                      88000U 4-CHLORO-3-METHYLPHENOL
88000U 2,4,6-TRICHLOROPHENOL
88000U 2,4,5-TRICHLOROPHENOL
180000 2,4-DINITROPHENOL
180000 4-NITROPHENOL
             FLUORENE
   880000
   88000U 4-CHLOROPHFNYL PHENYL ETHER
88000U 4-NITROANILINE
   88000U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
                                                                                     88000U 2.3.4.6-TETRACHLOROPHENOL
180000U 2-METHYL-4.6-DINITROPHENOL
180000U PENTACHLOROPHENOL
   88000U 4-BROMOPHENYL PHENYL LIHER
   88000U HEXACHLOROBENZENE (HCB)
   13000J PHENANTHRENE
88000U ANTHRACENE
                                                                                           40 PERCENT MOISTURE
   88000U DI-N-BUTYLPHTHALATE
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REMARKS

REMARKS

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT
PROJECT NO. 89-400
             SAMPLE NO. 34902 SAMPLE TYPE: SOIL
                                     PROG ELEM: NSF COLLECTED BY: R YOUNG
  SOURCE: WESTINGHOUSE ELECT.
                                     CITY: ATHENS
* *
                                                   ST: GA
                                                                    * *
                                     COLLECTION START: 05/04/89 1120 STOP: 00/00/00
  STATION ID: SS-04 SURFACE SOIL #04
* *
                                                                    * *
                                                                    * *
```

ANALYTICAL RESULTS UG/KG

```
PROPYLCYCLOHEXANE
 10000JN
            PROPYLBENZENE
 30000JN
200000JN
            ETHYLMETHYLBENZENE (3 ISOMERS)
900000JN
            TRIMETHYLBENZENE (3 ISOMERS)
            PETROLEUM PRODUCT
 20000JN
            (METHYLPROPYL)BENZENE
200000JN
            PROPENYLCYCLOHEXANE
100000JN
            DIHYDROINDENE
            METHYLPROPYLBENZENE
BUTYLBENZENE
900000JN
600000JN
            ETHYLDIMETHYLBENZENE (7 ISOMERS)
(DIMETHYLPROPYL)BENZENE (6 ISOMERS)
   6E6JN
   1E6JN
100000JN
            DIETHYLMETHYLBENZENE
            METHYLDECAHYDRONAPHTHALENE
 20000JN
 30000JN
            PENTYLCYCLOHEXANE
700000JN
            METHYLDIHYDROINDENE
   1E6JN
            DIMETHYL (MFTHYL FTHYL ) BENZENE (6 ISOMERS)
            DIETHYLBENZENE
   1E6JN
    2E6J
            10 UNIDENTIFIED COMPOUNDS
2000ÖÖJN
            TETRAHYDRONAPHTHALENE
             [ (METHYLBENZYL) SULFONYL] PHENOL
100000JN
            DIMETHYLDIHYDROINDENE (2 ISOMERS)
200000JN
            DIMETHYL (METHYLPROPYL) BENZENE (2 ISOMERS)
 90000JN
100000JN
            ETHYL1RIMETHYLBENZENE
 60000JN
            1-METHYLNAPHTHALENE
            DIMETHYLNAPHTHALENE
 20000JN
            HEXAMETHYLOCTAHYDROINDENE
BIS(DIMETHYLETHYL)METHYLPHENOL
100000JN
100000JN
 20000JN
            TRIMETHYLNAPATHALENE (2 ISOMERS)
 30000JN
            METHYL (METHYLETHYL) NAPHTHALENE
            TETRADECANOIC ACID
200000JN
 30000JN
            DIMETHYLPHENANTHRENE
            HEXADECENOIC ACID
   1E6JN
            HEXADECANDIC ACID
OCTADECANDIC ACID
FTHYL(METHYLETHYL)BENZENE
   4E6JN
   1E6JN
   2E6JN
 50000JN
            METHYLPROPYLCYCLOHEXANE (2 ISOMERS)
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^{*}NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *A-AVERAGE VALUE *NA-NOT ANALYZED *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

^{*}Ř-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/14/89 PESTICIDES/PCB'S DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1530 STOP: 00/00/00 ** SOURCE: WESTINGHOUSE ELECT. .. STATION ID: SS-01 BACKGROUND SURFACE SOIL . . . ** UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS S. 1UJ ALDRIN 62UJ PCB-1232 (AROCLOR 1232) 8.1UJ HEPTACHLOR 62UJ PCB-1248 (AROCLOR 1248) 62UJ PCB-1260 (AROCLOR 1260) 8.1UJ HEPTACHLOR EPOXIDE 8.1UJ ALPHA-BHC 62UJ PCB-1016 (AROCLOR 1016) 8.1UJ BETA-BHC 31000 TOXAPHENE 8.1UJ GAMMA BHC (LINDANE) CHLORDENE ALPHA-CHLORDENE /2 BETA CHLORDENE /2 GAMMA-CHLORDENE /2 8.1UJ DEL [A-BHC 8.1UJ ENDOSULFAN I (ALPHA) 8.1UJ DIELDRIN GAMMA-CHLORDENE /2 1-HYDROXYCHLORDENE GAMMA-CHLORDANE /2 8 1UJ 4.4'-DDT (P.P'-DDT) 8 1UJ 4.4'-DDE (P.P'-DDE) 8 1UJ 4.4'-DDD (P.P'-DDD) TRANS-NONACHLOR 8.10J ENDRIN 8.10J ENDOSULFAN II (BETA) 8.10J ENDOSULFAN SULFATE 42UJ CHLORDANE (TECH. MIXTURE) /1 62UJ PCB-1242 (AROCLOR 1242) 62UJ PCB-1254 (AROCLOR 1254) 62UJ PCB-1221 (AROCLOR 1221) _--ALPHA-CHLORDANE /2 CIS-NONACHLOR OXYCHLORDANE (OCTACHLOREPOXIDE) /2 19UJ METHOXYCHLOR 8.1UJ ENDRIN KETONE 19 PERCENT MOIST PERCENT MOISTURE

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/14/89

PESTICIDE	S/PCB'S DATA REPORT				
*** * * *					
	JECT NO. 89-400 - SAMPLE N RCE: WESTINGHOUSE ELECT.	U. 34900 SAMPLE ITPE: SU		ELEM: NSF COLLECTED BY: R YOU! : ATHENS ST: GA	
	TION ID: SS-02 SURFACE SOIL	#02		: ATHENS ECTION START: 05/04/89 1020 ST	** 00/00/00 -40
**	TON ID. 33 OF SOM HOL SOM	W (72	COLLE	10110N START. 05/04/09 1020 3	**
*** * * *	· • • • • • • • • • • • • • • • • • • •	* * * * * * * * * * * * * *			
UG/KO			UG/KO		
0011	AL DOTAL			000 4000 (4000)	
22U 22U	ALDRIN		2100	PCB-1232 (AROCLOR 1232)	
22U	HEPTACHLOR HEPTACHLOR EPOXIDE		2100	PCB-1248 (AROCLOR 1248)	
22Ŭ	ALPHA-BHC		2100 2100	PCB-1260 (AROCI OR 1260) PCB-1016 (AROCLOR 1016)	
220	BETA-BHC		14000	TOXAPHENE	
220	GAMMA BIIC (LINDANE)		14(7)0	CHLORDENE /2	
22Ŭ	DEL I A-BHC			ALPHA-CHLORDENE /2	
220	ENDOSULFAN I (ALPHA)			BETA CHLORDENE /2	
500	DIELDRIN			GAMMA-CHLORDENE /2	
22U	4.4'-DOT (P.P'-DDT)			1-HYDROXYCHLORDENE /2	
22ป	4.4'-DDE (P.P'-DDE)			GAMMA-CHLORDANE /2	
220	4,4'-DDD (P,P'-DDD)			TRANS-NONACHLOR /2	
220	ENDRIN			ALPHA-CHLORDANE /2	
220	ENDOSULFAN II (BETA)			CIS-NONACHLOR /2	
3 <u>10</u> U	ENDOSULFAN SULFATE			OXYCHLORDANE (OCTACHLOREPOXIDE) /2
970	CHLORDANE (TECH. MIXTURE)	/1	79U	METHOXYCHLOR	
2100	PCB-1242 (AROCLOR 1242)		330	ENDRIN KETONE	
2100	PCB-1254 (AROCLOR 1254)		14	PERCENT MOISTURE	
2100	PCB-1221 (AROCLOR 1221)				

REMARKS

REMARKS

FOOTNOTES

DECTICIOSE /OCD/C DATA BEDODE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

06/14/89 PESTICIDES/PCB'S DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1035 STOP: 00/00/00 .. ** * * UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS 1000U PCB-1232 (AROCLOR 1232) 1000U PCB-1248 (AROCLOR 1248) 350JN PCB-1260 (AROCLOR 1260) ALDRIN HEPTACHLOR 860 HEPTACHLOR EPOXIDE 28U 280 ALPHA-BHC 10000 PCB-1016 (AROCLOR 1016) 1600 BETA-BHC 15000 TOXAPHENE 44U GAMMA BHC (LINDANE) CHLORDENE ---ALPHA-CHLORDENE /2 BETA CHLORDENE /2 GAMMA-CHLORDENE /2 DEL IA-BHC 280 ENDOSULFAN I (ALPHA) **600** 43J DIELDRIN 4.4'-DDT (P.P'-DDT) 4.4'-DDE (P.P'-DDE) 4.4'-DDD (P.P'-DDD) 28U 1-HYDROXYCHLORDENE 66U GAMMA-CHLORDANE TRANS-NONACHLOR ALPHA-CHLORDANE 74 4RU ENDRIN ___ /2 ENDRIN
ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221) CIS-NONACHLOR 48U 4ŘŪ OXYCHLORDANE (OCTACHLOREPOXIDE) /2 250U METHOXYCHLOR 68U 28Ú 33 1100 FNDRIN KETONE 300U PERCENT MOISTURE

REMARKS

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REMARKS

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

06/14/89 PESTICIDES/PCB'S DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-04 SURFACE SOIL #04 COLLECTION START: 05/04/89 1120 STOP: (N)/00/00 ** . ** UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS ALDRIN 440U PCB-1232 (AROCLOR 1232) 440U PCB-1248 (AROCLOR 1248) 33U HEPTACHLOR HEPTACHLOR FPOXIDE 41U 440U PCB-1260 (AROCLOR 1260) 41U ALPHA-BHC 440U PCB-1016 (AROCLOR 1016) TOXAPHENE BETA-BHC 410 16000 41 U GAMMA BIIC (LINDANE) CHLORDENE ___ ALPHA-CHLORDENE DEL IA-BHC 41U ALPHA-UHLUKUENE /2
BETA CHLORDENE /2
GAMMA-CHLORDENE /2
1-HYDROXYCHLORDENE
GAMMA-CHLORDANE /2
TRANS-NONACHLOR /2 410 ENDOSULFAN I (ALPHA) ___ 66 DIELDRIN 4,4'-DDT (P,P'-DDT)
4,4'-DDE (P,P'-DDE)
4,4'-DDD (P,P'-DDD) 79U 940 **790** 79U 79U ENDRIN ALPHA-CHLORDANE /2 ENDOSULFAN II (BETA) ENDOSULFAN SULFATE CIS-NONACHLOR OXYCHLORDANE (OCTACHLOREPOXIDE) /2
METHOXYCHLOR 1500 CHLORDANE (TECH. MIXTURE) /1 220U 250U PCB-1242 (AROCLOR 1242) PCB-1254 (AROCLOR 1254) PCB-1221 (AROCLOR 1221) 440U 1000 ENDRIN KETONE 440U PERCENT MOISTURE

REMARKS

440U

REMARKS

FOOTMOTES *Ă-ĂVĒRĀGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT, C-CONFIRME 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE. C-CONFIRMED BY GC/MS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

	EPA-REGION IV ES	SD ATHENS GA	06/13/89
PURGEABLE	E ORGANICS DATA REPORT		100, 13, 65
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** PROJ	JECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: R YOUNG	**
** SOUR	RCE: WESTINGHOUSE ELECT. TION ID: SB-01 BACKGROUND SUBSURFACE SOIL	CITY: ATHENS ST: GA	4.4
** STAT	TION ID: SB-OT BACKGROUND SUBSURFACE SOTE	COLLECTION START: 05/03/89 1550 STOP (N)	/OO/OO **
**			**
UG/KO	* * * * * * * * * * * * * * * * * * *		* * * * * * * * * * * * * * * * * * * *
Ca/ Ku	WINTALLOW VERNELD	UG/KG ANALYTICAL RESULTS	
460	CHL OROME THANE	46U CIS-1.3-DICHLOROPROPENE	
46U	VINYL CHLORIDE	4500 METHYL ISOBULYL KETONE	
4GU	BROMOMÉTHANF	4GU TOLUENC	
46U	CHLOROETHANE	46U TRANS-1,3 DICHLOROPROPENE	
460	IRICHLOROFL UDROMETHANE	46U 1,1,2-IRICHLOROFTHANE	
46U	CHLOROMETHANE VINYL CHLORIDE BROMOMETHANE CHLOROETHANE IRICHLOROFLUOROMETHANE 1.1-DICHLOROETHENE(1,1-DICHLOROETHYLENE) ACETONE	46U TETRACHLOROETHENE (TETRACHLOROETHYLENE)
460U		46U 1,3-DICHLOROPROPANE	
460U 46U	CARBON DISULFIDE METHYLENE CHLORIDE	460U METHYL BUTYL KETONE	
46U	TRANS-1.2-DICHLOROETHENE	46U DIBROMOCHLOROMETHANE 46U CHLOROBENZENE	
46U	1,1-DICHLOROETHANE	46U 1,1,1,2-TETRACHLOROETHANE	
4600	VINYL ACETATE	46U ETHYL BENZENE	
46U	CIS-1, 2-DICHLOROETHENE	46U (N- AND/OR P-)XYLENE	
46U	2,2-DICHLOROPROPANE	46U O-XYLENE	
460U	METHYL ETHYL KETONE	46U STYRÊNE	
46U	BROMOCHLOROMETHANE	46U BROMOFORM	
46U	CHLOROFORM	46U BROMOBENZENE	
46U	1,1,1-TRICHLOROETHANE 1,1-DICHLOROPROPENE	46U 1.1.2,2-TETRACHLORGETHANE	
46U 46U	CARBON TETRACHLORIDE	46U 1,2,3-TRICHLOROPROPANE 46U 0-CHLUROTOLUENE	
460	1.2-DICHLOROETHANE	46U P -CHLOROTOLUENE	
46U	BENZENE	46U 1,3-DICHLOROBENZENE	
46Ŭ	TRICHLOROFTHENE(IRICHLOROETHYLENE)	46U 1.4-DICHLOROBENZENE	
46V	1,2-DICHLOROPROPANE	46U 1,2-DICHLOROBENZENE	
46U	DIBROMOMETHANE	21.0 PERCENT MOISTURE	
46U	BROMODICHLOROMETHANF		

REMARKS

REMARKS

PURGEABLE ORGANICS DATA REPORT	ETA REGION IV ESD, MINENS, GA.	05/30/69
** PROJECT NO. 89-400 SAMPLE NO. 34899 SAMI ** SOURCE: WESTINGHOUSE ELECT. ** STATION ID: SB-02 SUBSURFACE SOIL #2		00/00/00
UG/KG ANALYTICAL RESULTS	* T * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *
410 CHLOROMETHANE 410 VINYL CHLORIDE 410 BROMOMETHANE 410 CHLOROETHANE 410 IRICHLOROFI UOROMETHANE 410 IRICHLOROFI UOROMETHANE 4100 ACEIONE 4100 CARBON DISULFIDE 4100 METHYLENE CHLORIDE 4110 TRANS-1,2-DICHLOROETHENE 4110 1,1-DICHLOROETHANE 4100 VINYL ACETATE 4110 CIS-1,2-DICHLOROETHENE 4110 CIS-1,2-DICHLOROETHENE 4110 CIS-1,2-DICHLOROETHENE 4110 CIS-1,2-DICHLOROETHANE 4110 METHYL ETHYL KETONE 4110 BROMOCHLOROMETHANE 4110 CHLOROFORM 4110 1,1,1-TRICHLOROETHANE 4110 1,2-DICHLOROPROPENE 4110 CARBON IFTRACHLORIDE 4111 1,2-DICHLOROETHANE 4111 TRICHLOROETHANE	410U METHYL BUTYL KETONE 410U METHYL BUTYL KETONE 410U CHLOROBENZENE 410U CHLOROBENZENE 410U 1,1,1,2-TETRACHLOROETHANE 410U ETHYL BENZENE 410U (M- AND/OR P-)XYLENE 410U O-XYLENE 410U STYRENE 410U BROMOFORM 410U BROMOBENZENE 410U 1,1,2,2-TETRACHLOROETHANE 410U 1,2,3-TRICHLOROPROPANE 410U 0-CHLOROTOLUENE 410U P-CHLOROTOLUENE 410U 1,3-DICHLOROBENZENE	ENE)

REMARKS

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

	FPA-H	REGION IV ESD, ATHENS, GA.	06 (12 (00
PURGEABLE	· NUCANICS NAIR REDOUT		06/13/89
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** PROJ	JECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE-	SUIL PROG FIFM: NSF COLLECTED BY R VOUNG	• • • • • • • •
** SOUR	RCE: WESTINGHOUSE ELECT.	SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS SI: GA COLLECTION START, 05/04/89 1225 STOP: (H)/OU/OO	**
** STAT	TION ID: SB-03 SUBSURFACE SOTE #03	COLLECTION START, 05/04/89 1225 STOP: 00/00/00	• • •
*** * * *			
HEARE	: AMAI VII CAI DECINITO	NC/MC ANALUTICAL DECLU TO	
		AMAZITIONE NEGOZIO	
1100	CHLOROMETHANE	110U CIS 1,3-DICHLOROPROPENE	
1109	VINYL CHLORIDE	11000 METHYL ISOBULYL KETONE	
1100	BROMOMETHANE	110U TOLUENE	
1100	CHLOROETHANE	1100 TRANS-1,3 DICHLOROPROPENE	
1100	IRICHLOROFLUOROMETHANE	1100 1.1.2-INICHLOROFTHANE	
1100	1.1-DICHLOROETHENE(1.1-DICHLOROFIHYLENE)	1100 TETRACHLOROETHENE (TETRACHLOROETHYLENE)	
11000	ACETONE	110U 1,3-DICHLOROPROPANE	
11000	CARBON DISULFIDE	11000 METHYL BUTYL KETONE	
1100	METHYLENE CHLORIDE	110U DIBROMOCHLOROMETHANE	
1100	TRANS-1.2-DICHLOROETHENE	110U CHLOROBENZENE	
1100	1 1-DICHLOROETHANE	110U 1,1,1,2-TETRACHLOROETHANE	
11000	VINYL ACETATE	1100 ETHYL BENZENE	
1100	CIS-1 2-DICHLOROETHENE	110U (M- AND/OR P-)XYLENE	
1100	2.2-DICHLOROPROPANE	1100 O-XYLENE	
1 1 000	METHYL ETHYL KETONE	110U STYRENE	
1100	BROMOCHLOROMETHANE	110U BROMOFORM	
1100	CHL OROFORM	110U BROMOBENZENE	
1100	1.1.1-TRICHLORDE LHANE	110U 1,1,2,2-TETRACHLOROETHANE	
1100	1 1 DICHLOROPROPENE	1100 1.2.3-TRICHLOROPROPANE	
1100	CARBON TETRACHLORIDE	1100 O-CHLOROTOLUENE	
1100	CHLOROMETHANE VINYL CHLORIDE BROMOMETHANF CILLOROETHANE IRICHLOROFLUOROMETHANE 1,1-DICHLOROETHENE(1,1-DICHLORUETHYLENE) ACETONE CARBON DISULFIDE METHYLENE CHLORIDE TRANS-1,2-DICHLOROETHENE 1,1-DICHLOROETHANE VINYL ACETATE CIS-1,2-DICHLOROETHENE 2,2-DICHLOROPROPANE METHYL ETHYL KETONE BROMOCHLOROMETHANE CHLOROFORM 1,1,1-TRICHLOROETHANE 1,1 DICHLOROPROPENE CARBON TETRACHIORIDE 1,2-DICHLOROFTHENE BENZENE TRICHLOROFTHENE(IRICHLOROETHYLENE) 1,2-DICHLOROPROPANE DIBROMOMETHANE BENZENE TRICHLOROFTHENE(IRICHLOROETHYLENE) 01BROMOMETHANE BROMODICHLOROMETHANE BROMODICHLOROMETHANE	110U P-CHLOROTOLUENE	
1100	BENZENE	1100 1.3-DICHLOROBENZENE	
1100	TRICHLOROFTHENE(IRICHLOROFTHYLENE)	110U 1,4-DICHLOROBENZENE	
1100	1.2-DICHLOROPROPANE	1100 1.2-DICHLOROBENZENE	
1100	DIBROMOMETHANE	19.0 PERCENT MOISTURE	
1100	BROMODICHLOROMETHANF	TOTAL TRANSPORT	
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REMARKS

REMARKS

^{*}COUNTIES***
*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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06/08/89

EXTRACTABLE ORGANICS DATA REPORT	TESP, MILES, CA.	1707 007 03
PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL	PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1550 STOP: 00/00/	(00) ***
UG/KG ANALYTICAL RESULTS 1700U BIS(2-CHLOROITHYL) ETHER 1700U N-NITROSODI-N-PROPYI AMINF 1700U HEXACHLOROETHANE 1700U 1700U 150PHORONE 1700U 1,2,4-TRICHLOROBENZENE 1700U 1700U 1,2,4-TRICHLOROBENZENE 1700U 1700U 4-CHLOROANILINE 1700U 1700U HEXACHLOROBUTADIENE 1700U 1700U HEXACHLOROBUTADIENE 1700U 2-METHYLNAPHTHALENE 1700U 2-METHYLNAPHTHALENE 1700U 2-CHLORONAPHTHALENE 1700U 2-CHLORONAPHTHALENE 1700U 2-CHLORONAPHTHALENE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U 1700	UG/KG ANALYTICAL RESULTS 1700U FLUORANTHENE 1700U PYRENE 1700U BENZYL BUTYL PHTHALATE 1700U BENZOLA)ANTHRACENE 1700U CHRYSENE 1700U BIS(2-ETHYLHEXYL) PHTHALATE 1700U DI-N-OCTYLPHTHALATE 1700U BENZOLA AND/OR K)FLUORANTHENE 1700U BENZOLA-PYRENE 1700U INDENO (1,2,3-CD) PYRENE 1700U DIBENZOLA,H)ANTHRACENE 1700U DIBENZOLA,H)ANTHRACENE 1700U DIBENZOLA,H)ANTHRACENE 1700U PHENOL 1700U 2-CHLOROPHENOL 3300U BENZYL ALCOHOL 1700U 2-METHYLPHENOL 1700U 2-MITROPHENOL 1700U 2,4-DICHLOROPHENOL 1700U 2,4-DINITROPHENOL 1700U 2,4-DINITROPHENOL 1700U 2,4-DINITROPHENOL 1700U 2,3-4,6-TRICHLOROPHENOL 330OU 4-NITROPHENOL 330OU 2-METHYL-4-6-DINITROPHENOL 330OU 2-METHYL-4-6-DINITROPHENOL 330OU 2-METHYL-4-6-DINITROPHENOL	* * * * * **** n
1700U DI-N-BUTYLPHTHALATE		

REMARKS

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT STATION ID: SB-01 BACKGROUND SUBSURFACE SOIL CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1550 STOP: 00/00/00 * * * * . ** * *

ANALYTICAL RESULTS UG/KG

HEXADECANGIC ACID 5000JN 400JN OCTADECANOIC ACID

FOOTNOTES *A-ACTUAL VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

~REGION IV ESD, ATHENS, GA. 06/08/89

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EXTRACTABLE ORGANICS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE TYPE: SOIL
                                                                              PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1005 STOP 00/00/00
     SOURCE: WESTINGHOUSE ELECT.
STATION ID: SB-02 SUBSURFACE SOIL #2
..
UG/KG ANALYTICAL RESULTS
                                                                             UG/KG ANALYTICAL RESULTS
   1700U BIS(2 CHLOROETHYL) ETHER
1700U BIS(2-CHLOROISOPROPYL) ETHER
                                                                             1700U FLUORANTHENE
1700U PYRENE
   1700U N-NITROSODI-N-PROPYLAMINE
                                                                             1700U BENZYL BUTYL PHTHALATE
   1700U HEXACHLOROETHANE
                                                                             1700U 3.3'-DICHLOROBENZIDINE
   1700U NITROBENZENE
                                                                              1700U BENZO(A)ANTHRACENE
                                                                             1700U CHRYSENE
1700U BIS(2-ETHYLHEXYL) PHTHALATE
1700U DI-N-OCTYLPHTHALATE
170J BENZO(B AND/OR K)FLUORANTHENE
   1700U ISOPHORONE
                                                                                                                                          . 6
   17000 BIS(2-CHLOROETHOXY) METHANE
   1700U 1,2,4-TRICHLOROBENZENE
   1700U NAPHTHALENE
   1700U 4-CHLOROANILINE
1700U HEXACHLOROBUTADIENE
1700U 2-METHYLNAPHTHALENE
                                                                              1700U BENZO-A-PYRENE
                                                                             1700U INDENO (1,2,3-CD) PYRENE
1700U DIBENZO(A,H)ANTHRACENE
   1700U HEXACHLOROCYCLOPENTADIENE (HCCP)
1700U 2-CHLORONAPHTHALENE
                                                                              1700U
                                                                                     BENZO(GHI)PÉRYLENE
                                                                              17000
                                                                                     PHENOL
   1700U 2-NITROANILINE
                                                                                     2-CHLOROPHENOL
                                                                              1700U
                                                                             3400U BENZYL ALCOHOL
1700U 2-METHYLPHENOL
1700U (3-AND/OR 4-)METHYLPHENOL
   1700U DIMETHYL PHTHALATE
1700U ACENAPHTHYLENE
   1700U 2,6-DINITROTOLUENE
1700U 3-NITROANILINE
                                                                              1 700U
                                                                                     2-NITROPHENOL
   1700U ACENAPHTHENE
                                                                              17000
                                                                                     2.4-DIMETHYLPHENOL
                                                                             3400U BENZOIC ACID
1700U 2,4-DICHLOROPHENOL
1700U 4-CHLORO-3-METHYLPHENOL
1700U 2,4,6-TRICHLOROPHENOL
   1700U DIBENZOFURAN
   1700U 2,4-DINITROTOLUENE
1700U DIETHYL PHTHALATE
   1700U FLUORENE
                                                                              1700U 2.4.5-TRICHLOROPHENOL
   1700U 4-CHLOROPHENYL PHENYL ETHER
   1700U 4-NITROANILINE
1700U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
                                                                              3400U 2,4-DINITROPHENOL
                                                                              34000 4-NITROPHENOL
                                                                             1700U 2,3,4,6-TETRACHLOROPHENOL
3400U 2-METHYL-4,6-DINITROPHENOL
    1700U 4-BROMOPHENYL PHENYL ETHER
    1700U HEXACHLOROBENZENE (HCB)
    1700U PHENANTHRENE
                                                                              3400U PENTACHLOROPHENOL
    1700U ANTHRACENE
                                                                                 22 PERCENT MOISTURE
    1700U DI-N-BUTYLPHTHALATE
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REMARKS

REMARKS

06/08/89

EXTRACTABLE ORGANICS DATA REPORT	Err Medica IV 250, Miles, an	,,
PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE SOURCE: WESTINGHOUSE ELECT. STATION ID: SB-03 SUBSURFACE SOIL #03	TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS COLLECTION START: 05/04/89 1225 STOP: 00/00/	
UG/KG ANALYTICAL RESULTS	UG/KG ANALYTICAL RESULTS	, , , , , , , , , , , , , , , , , , , ,
1700U BIS(2 CHLOROETHYL) ETHER 1700U BIS(2-CHLOROISOPROPYL) ETHER 1700U N-NITROSOOI-N-PROPYLAMINF 1700U NITROBENZENE 1700U ISOPHORONE 1700U ISOPHORONE 1700U NAPHTHALENE 1700U NAPHTHALENE 1700U HEXACHLOROBUTADIENE 1700U HEXACHLOROBUTADIENE 1700U HEXACHLOROBUTADIENE 1700U C-METHYLNAPHTHALENE 1700U 2-METHYLNAPHTHALENE 1700U 2-CHLORONAPHTHALENE 1700U 2-NITROANILINE 1700U OIMETHYL PHTHALATE 1700U ACENAPHTHYLENE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U 12-CHLOROMAPHTHALENE 1700U 2-CHLOROMAPHTHALENE 1700U 2-CHLOROMAPHTHALENE 1700U ACENAPHTHYLENE 1700U ACENAPHTHYLENE 1700U 3-NITROANILINE 1700U 12-CHLOROMAPHTHALATE 1700U DIBENZOFURAN 1700U 2-DINITROTOLUENE 1700U DIETHYL PHTHALATE 1700U ACENAPHTHENE 1700U ACENAPHTHENE 1700U ACHOROMENYL PHENYL ETHER 1700U ACHOROMENYL PHENYL ETHER 1700U A-BROMOPHENYL PHENYL ETHER 1700U HEXACHLOROBENZENE (HCB) 1700U HEXACHLOROBENZENE (HCB)	1700U FLUORANTHENE 1700U PYRFNE 1700U BENZYL BUTYL PHTHALATE 1700U 3,3'-DICHLOROBENZIDINE 1700U BENZO(A)ANTHRACENE 1700U CHRYSENE 1700U BIS(2-ETHYLHEXYL) PHTHALATE 1700U DI-N-OCTYLPHTHALATE 1700U BENZO(B AND/OR K)FLUORANTHENE 1700U BENZO(B AND/OR K)FLUORANTHENE 1700U INDENO (1,2,3-CD) PYRENE 1700U DIBENZO(A,H)ANTHRACENE 1700U BENZO(GHI)PERYLENE 1700U PHENOL 1700U 2-CHLOROPHENOL	
1700U DI-N-BUTYLPHTHALATE		

REMARKS

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL
SOURCE: WESTINGHOUSE ELECT.
STATION ID: SB-03 SUBSURFACE SOIL #03

PROG FLEM: NSF COLLECTED BY: R YOUNG
CITY: ATHENS
ST. GA
COLLECTION START: 05/04/89 1225 STOP: 00/00/00

ANALYTICAL RESULTS UG/KG

200JN TETRADECANOIC ACID 5000JN HEXADECANOIC ACID 700JN OCTADECANOIC ACID

n

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

06/14/89 PESTICIDES/PCB'S DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START. 05/03/89 1550 STOP: 00/00/00 ** STATION ID: SB-O1 BACKGROUND SUBSURFACE SOIL ** ** * * UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS PCB-1232 (AROCLOR 1232) PCB-1248 (AROCLOR 1248) 8.1U ALDRIN 270 HEPTACHLOR 62U HEPTACHLOR EPOXIDE 8.10 62V PCB-1260 (AROCLOR 1260) ALPIIA-BHC 8,10 62U PCB-1016 (AROCLOR 1016) 8 10 BETA-BHC 3100 TOXAPHENE GAMMA BHC (LINDANE) 8.1U CHLORDENE CHLORDENE /2 ALPHA-CHLORDENE DEL IA-BHC 8.10 GAMMA-CHLORDENE /2
1-HYDROXYCE 8.10 ENDOSULFAN I (ALPHA) 8.10 DIELDRIN /2 4.4'-DOT (P.P'-DOT) 4.4'-DOE (P.P'-DOE) 4.4'-DOD (P.P'-DDD) GAMMA-CHLORDANE /2
TRANS-NONACHIOR 1-HYDROXYCHLORDENE 8.10 8.10 8, 1U 8.10 ENDRIN ALPHA-CHLORDANE ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221) 8.1U CIS-NONACHLOR 8,10 OXYCHLORDANE (OCTACHLOREPOXIDE) /2 ___ 42U 190 METHOXYCHLOR 62U 8.10 ENDRIN KETONE 21 PERCENT MOISTURE 62U

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/14/89 PESTICIDES/PCB'S DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1005 STOP: 00/00/00 ** ** SOURCE: WESTINGHOUSE ELECT. * * ** STATION ID: SB-02 SUBSURFACE SOIL #2 ** .. * * UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS 8,10 ALDRIN PCB-1232 (AROCLOR 1232) 8.10 HEPTACHLOR PCB-1248 (AROCLOR 1248) 62U HEPTACHLOR FROXIDE 8.10 62U PCB-1260 (AROCI OR 1260) PCB-1016 (AROCLOR 1016) 8.10 ALPHA-BHC 62U 8 10 BETA-BHC TOXAPHENE 3100 8.10 GAMMA BHC (LINDANE) CHLORDENE ___ ALPHA-CHLORDENE 8,10 DEL I A-BHC BETA CHLORDENE /2 GAMMA-CHLORDENE /2 ENDOSULFAN I (ALPHA) 8.10 8,10 DIELDRIN 4,4'-DDT (P,P'-DDT) 4,4'-DDE (P,P'-DDE) 4,4'-DDD (P,P'-DDD) 1-HYDROXYCHLORDENE 8.1J GAMMA-CHLORDANE 8.10 8.10 TRANS-NONACHLOR ENDRIN 8.10 ALPHA-CHLORDANE ENDOSULFAN II (BETA)
ENDOSULFAN SULFATE
CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254) 8.10 CIS-NONACHLOR 8.10 OXYCHLORDANE (OCTACHLOREPOXIDE) /2 42U 190 METHOXYCHLOR 8 1Ŭ 22 62V ENDRIN KETONE 62U PERCENT MOISTURE

REMARKS

PCB-1221 (AROCLOR 1221)

REMARKS

^{***}FOOTNOTES*** *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS
1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/14/89 PESTICIDES/PCB'S DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1225 STOP 00/00/00 STATION ID: SB-03 SUBSURFACE SOIL #03 ** ** UG/KG ANALYTICAL RESULTS ANALYTICAL RESULTS UG/KG 8.1U ALDRIN PCB-1232 (AROCLOR 1232) PCB-1248 (AROCLOR 1243) 62U HEPTACHLOR 8 10 62U HEPTACHLOR FPOXIDE PCB-1260 (AROCLOR 1260) 8.1U 62U ALPHA-BHC 8.10 62V PCB-1016 (AROCLOR 1016) 8.10 BETA-BHC TOXAPHENE 3100 8.10 GAMMA BHC (LINDANE) CHLORDENE _---ALPHA-CHLORDENE BETA CHLORDENE 8.10 DEL IA-BHC BETA CHLORDENE /2 GAMMA-CHLORDENE /2 1-HYDROXYCHLORDENE 8.10 ENDOSULFAN I (ALPHA) 8.10 DIELDRIN 4,4'-DDT (P.P'-DDT) 4,4'-DDE (P.P'-DDE) 4,4'-DDD (P.P'-DDD) 8.10 8.10 GAMMA-CHLORDANE /2 TRANS-NONACHLOR /2 ALPHA-CHLORDANE /2 8.10 ENDRIN 8.10 ENDOSULFAN II (BETA) CIS-NONACHLOR 8.10 ___ 8.10 ENDOSULFAN SULFATE OXYCHLORDANE (OCTACHLOREPOXIDE) /2 CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221) 42U 190 METHOXYCHLOR 8.10 19 62U ENDRIN KETONE PERCENT MOISTURE 62U

REMARKS

62U

REMARKS

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS 1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

06/13/89 PURGFABLE ORGANICS DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS SI: GA COLLECTION START: 05/03/89 1630 STOP: 00/00/00 PROJECT NO. 89 400 SAMPLE NO. 34906 SAMPLE TYPE: SUIL SOURCE: WESTINGHOUSE ELECT. 44 STATION ID: SD-01 BACKGROUND SEDIMENT SOIL * * UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS 44U CHLOROMETHANE 440 CIS 1.3-DICHLOROPROPENE 44U VINYL CHLORIDE 4400 METHYL ISUBUTYL KETONE 4**4**Ü BROMOMETHANE 440 TOLUENE 445 CHLORDETHANE 140 TRANS-1,3 DICHLOROPROPENE 4411 TRICHLOROFL UOROMETHANE 44U 1 1 2-IRICHLOROFTHANE 44U 1,1-DICHLOROETHENE(1,1-DICHLORUETHYLENE) TETRACHLOROETHENE (TETRACHLOROETHYLENE) 440 440U ACE TONE 444 1,3-DICHLOROPROPANE CARBON DISULFIDE 440U 440U METHYL BUTYL KETONE METHYLENE CHLORIDE TRANS-1,2-DICHLOROETHENE 1,1-DICHLOROETHANE 44U 44U **DIBROMOCHLOROMETHANE** 44U 44U CHL OROBENZENE 1.1.1.2-TETRACHLOROETHANE ETHYL BENZENE 44U 44U 440U VINYL ACETATE 44U CIS-1.2-DICHLOROETHENE 44U 44U (M- AND/OR P-)XYLENE 44U 2,2-DICHLOROPROPANE 440 O-XYLENE METHYL ETHYL KETONE BROMOCHLOROMETHANE 440U 440 STYRENE BROMOFORM BROMOBENZENE 44U 44U 44U CHLOROFORM 440 1,1.2.2-TETRACHLORGETHANE 1,2,3-TRICHLOROPROPANE 44U 1.1.1-TRTCHLOROL THANE 44U 1,1 DICHLOROPROPENE 440 140 CARBON TETRACHLORIDE 44U 440 O-CHLORUTULUENE 1,2-DICHLOROETHANE BENZENE 44U 44U P-CHLOROTOLUENE 44U 1.3-DICHLOROBENZENE **44**U TRICHLOROFTHENEL (RICHLOROETHYLENE) 44U 44U 1,4-DICHLOROBENZENE 44U 1.2-DICHLOROPROPANE 44U 1,2-DICHLOROBENZENE 4411 DIBROMOMETHANE 33.0 PÉRCENT MOISTURE

REMARKS

44U

BROMODICHLOROMETHANF

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

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*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/13/89 PURGFABLE ORGANICS DATA REPORT PROJECT NO. 89 400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START. 05/03/89 1815 STOP: 00/00/00 ** SOURCE: WESTINGHOUSE ELECT. .. STATION ID: SD-02 SEDIMENT SOIL #02 ** * = .. * * UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS CHLOROMETHANE 73U CIS 1.3-DICHLOROPROPENE 730 VINYL CHLORIDE METHYL ISUBUTYL KETONE 7300 BROMOMETHANE 730 73U TOLUENE 730 730 TRANS-1,3 DICHLOROPROPENE 1,1,2-INICHLOROFTHANE 730 CHLOROETHANE 730 IRICHLOROFI. UOROMETHANE 1,1-DICHLOROCTHENE(1,1-DICHLOROETHYLENE) TÉTRACILLOROETHENE (TETRACHLOROETHYI FNE) 730 73U 7300 ACETONE 730 1,3-DICHLOROPROPANE CARBON DISULFIDE
METHYLENE CHLORIDE
TRANS-1,2-DICHLOROETHENE
1,1-DICHLOROETHANE 730U 730U METHYL BUTYL KETONE 73U 73U DIBROMOCHLOROMETHANE 73U 73U CHLOROBENZENE 730 73Ŭ 1,1,1,2-TETRACHLOROETHANE VINYL ACETATE 7300 730 ETHYL BENZENE CIS-1, 2-DICHLOROETHENE 2,2-DICHLOROPROPANE METHYL ETHYL KETONE BROMOCHLOROMETHANE 73Ŭ 73U (M- AND/OR P-)XYLENE O-XYLENE 730 730 7300 730 STYRENE 73U 73U BROMOFORM 730 CHLOROFORM 730 BROMOBENZENE 73U 1,1,1-TRICHLORUE IHANE 1,1-DICHLOROPROPENE 73U 1,1,2,2-TETRACHLOROETHANE 1,2,3-TRICHLOROPROPANE 73U 730 730 CARBON TETRACHLORIDE O-CHLOROTOLUENE 73U 73U 73U 1,2-DICHLOROETHANE P-CHLOROTOLUENE BÉNZENE 73U 1,3-DICHLOROBENZENE TRICHLOROETHENE(TRICHLOROETHYLENE) 73U 1,4-DICHLOROBENZENE 73U 1.2-DICHLOROPROPANE DIBROMOMETHANE 730 730 1,2-DICHLOROBENZENE

48.0

PERCENT MOISTURE

REMARKS

73U

730

BROMODICHLOROMETHANF

REMARKS

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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EXTRACTABLE ORGANICS DATA REPORT
** PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG ***

** SOURCE: WESTINGHOUSE ELECT.

** STATION ID: SD-01 BACKGROUND SEDIMENT SOIL

PROG ELEM: NSF COLLECTED BY: R YOUNG ***

CITY: ATHENS SI: GA **

COLLECTION START. 05/03/89 1630 STOP: (10/00/00 ***
                                                                                                                                                                              **
UG/KG ANALYTICAL RESULTS
                                                                                             UG/KG ANALYTICAL RESULTS
   2000UJ BIS(2 CHLOROETHYL) ETHER
                                                                                            2000UJ FLUORANTHENE
   2000UJ BIS(2-CHLOROISOPROPYL) ETHER
2000UJ N-NITROSODT-N-PROPYLAMINE
                                                                                            2000UJ PYRFNE
2000UJ BENZYL BUTYL PHTHALATE
   2000UJ HEXACHLOROETHANE
2000UJ NITROBENZENE
                                                                                            2000UJ 3,3'-DICHLOROBENZIDINE
                                                                                            2000UJ BENZO(A)ANTHRACENE
   2000UJ ISOPHORONE
                                                                                             2000UJ
                                                                                                       CHRYSÈNÉ
                                                                                                                                                                       - n
                                                                                            2000UJ BIS(2-ETHYLHEXYL) PHTHALATE
2000UJ DI-N-OCTYLPHTHALATE
   200000 BIS(2-CHLOROETHOXY) METHANE
   2000UJ 1.2.4-TRICHLOROBENZENE
   2000UJ NAPHTHALENE
2000UJ 4-CHLOROANILINE
                                                                                            2000UJ BENZO(B AND/OR K)FLUORANTHENE
2000UJ BENZO-A-PYRENE
   2000UJ HEXACHLOROBUTADIENE
2000UJ 2-METHYLNAPHTHALENE
2000UJ HEXACHLOROCYCLOPENTADIENE (HCCP)
                                                                                                       INDENO (1,2,3-CD) PYRENE
DIBENZO(A,H)ANTHRACENE
                                                                                             2000UJ
                                                                                             2000VJ
                                                                                             2000UJ
                                                                                                       BENZO(GHI)PERYLENE
   2000UJ 2-CHLORONAPHTHALENE
2000UJ 2-NITROANILINE
                                                                                             2000UJ
                                                                                                       PHENOL
                                                                                                       2-CHLOROPHENOL
BENZYL ALCOHOL
2-METHYLPHENOL
                                                                                             2000UJ
   2000UJ DIMETHYL PHTHALATE
2000UJ ACENAPHTHYLENE
                                                                                             4000UJ
                                                                                             200001
   2000UJ 2,6-DINITROTOLUENE
2000UJ 3-NITROANILINE
                                                                                             2000UJ
                                                                                                       (3-AND/OR 4-)METHYLPHENOL
                                                                                             2000UJ
                                                                                                       2-NITROPHENOL
                                                                                            2000UJ 2,4-DIME IHYLPHENUL
4000UJ BENZOIC ACID
2000UJ 2,4-DICHLOROPHENOL
   2000ULL ACENAPHTHEME
   2000UJ DIBENZOFURAN
   2000UJ 2.4-DINITROTOLUENE
2000UJ DIETHYL PHTHALATE
                                                                                             2000UJ 4-CHLORO-3-METHYLPHENOL
                                                                                            2000UJ 2,4,6-TRICHLOROPHENOL
2000UJ 2,4,5-TRICHLOROPHENOL
4000UJ 2,4-DINITROPHENOL
4000UJ 4-NITROPHENOL
   2000UJ FLUORENE
   2000UJ 4-CHLOROPHENYL PHENYL ETHER
2000UJ 4-NITROANILINE
   2000UJ N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
                                                                                            2000UJ 2,3,4,6-TETRACHLOROPHENOL
4000UJ 2-METHYL-4,6-DINITROPHENOL
4000UJ PENTACHLORUPHENOL
33 PERCENT MOISTURE
   2000UJ 4-BROMOPHENYL PHENYL ETHER
   2000UJ HEXACHLOROBENZENE (HCB)
   2000UJ PHENANTHRENE
   2000UJ ANTHRACENE
   2000UJ DI-N-BUTYLPHTHALATE
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REMARKS

REMARKS

FOOTMOTES

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS

STATION ID: SD-01 BACKGROUND SEDIMENT SOIL

COLLECTION START: 05/03/89 1630 STOP: 00/00/00

ANALYTICAL RESULTS UG/KG

2000UN HEXADECANDIC ACID

FOOTNOTES

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^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

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EXTRACTABLE ORGANICS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG STATION ID: SD-02 SEDIMENT SOIL #02 COLLECTION START: 05/03/89 1815 STOP: 00/00/00
**
..
* *
UG/KG
                 ANALYTICAL RESULTS
                                                                                UG/KG ANALYTICAL RESULTS
   2500U BIS(2-CHLOROETHYL) ETHER
                                                                                2500U FLUORANTHENE
   2500U BIS(2-CHLOROISOPROPYL) ETHER
2500U N-NITROSODI-N-PROPYLAMINE
                                                                                2500U PYRENE
                                                                                2500U BENZYL BUTYL PHTHALATE
                                                                                2500U 3.3'-DICHLOROBENZIDINE
2500U BENZO(A)ANTHRACENE
   2500U HEXACHLOROETHANE
   2500U NITROBENZENE
2500U ISOPHORONE
2500U B15(2-CHLOROETHOXY) METHANE
                                                                                 2500U CHRYSENE
                                                                                 25000 BIS(2-ETHYLHEXYL) PHTHALATE
    2500U 1,2,4-TRICHLOROBENZENE
                                                                                 2500U DI-N-OCTYLPHTHALATE
   2500U 1,2,4-TRICHLUROBENZE
2500U NAPHTHALENE
2500U 4-CHLOROANILINE
2500U HEXACHLOROBUTADIENE
2500U 2-METHYLNAPHTHALENE
                                                                                 2500U BENZO(B AND/OR K)FLUORANTHENE
                                                                                 2500U BENZO-A-PYRENE
                                                                                        INDENO (1,2,3-CD) PYRENE
DIBENZO(A,H)ANTHRACENE
                                                                                 2500v
                                                                                 25000
25000
    2500U HEXACHLOROCYCLOPENTADIENE (HCCP)
                                                                                        BENZO(GHI)PERYLENE
   2500U 2-CHLORONAPHTHALENE
                                                                                 2500V
                                                                                        PHENOL
    2500U 2-NITROANILINE
                                                                                 2500U
                                                                                        2-CHLOROPHENOL
   2500U DIMETHYL PHTHALATE
2500U ACENAPHTHYLENE
                                                                                 5000U BENZYL ALCOHOL
2500U 2-METHYL PHENOL
   2500U 2,6-DINITROTOLUENE
2500U 3-NITROANILINE
                                                                                 2500U
                                                                                        (3-AND/OR 4-)METHYLPHENOL
                                                                                 2500U 2-NITROPHENOL
   25000 ACENAPHTHENE
25000 DIBENZOFURAN
25000 2,4-DINITROTOLUENE
25000 DIETHYL PHTHALATE
                                                                                2500U 2.4-01ME1HYLPHENOL
5000U BENZOIC ACID
2500U 2,4-DICHLOROPHENOL
2500U 4-CHLORO-3-METHYLPHENOL
                                                                                2500U 2,4,6-TRICHLOROPHENOL
2500U 2,4,5-TRICHLOROPHENOL
5000U 2,4-DINITROPHENOL
5000U 4-NITROPHENOL
    2500U FLUORENE
    2500U 4-CHLOROPHENYL PHENYL ETHER
    2500U 4-NITROANILINE
2500U N-NIIROSODIPHENYLAMINE/DIPHENYLAMINE
    2500U 4-BROMOPHENYL PHENYL ETHER
                                                                                 2500U 2,3,4,6-TETRACHLOROPHENOL
                                                                                 5000U 2-METHYL-4,6-DINITROPHENOL
5000U PENTACHLOROPHENOL
    2500U HEXACHLOROBENZENE (HCB)
    2500U PHENANTHRENE
    2500U ANTHRACENE
                                                                                    48 PERCENT MOISTURE
```

REMARKS

2500U DI-N-BUTYLPHTHALATE

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT CITY: ATHENS ST: GA .. . ** STATION ID: SD-02 SEDIMENT SOIL #02 COLLECTION START: 05/03/89 1815 STOP: 00/00/00 * * ** * *

ANALYTICAL RESULTS UG/KG

HEXADECANDIC ACID 6000JN 700JN PETROLEUM PRODUCT

FOOTNOTES *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *A-AVERAGE VALUE *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

PESTICIDES/PCB'S DATA REPO	DRT EPA-REGION	IV ESD, ATHENS, GA.	06/14/89
** PROJECT NO. 89-400 ** SOURCE: WESTINGHOUSE	SAMPLE NO. 34906 SAMPLE TYPE: SOIL		; GA **
	ALYTICAL RESULTS	UG/KG ANALYTICAL	RESULTS
9.5U ALDRIN 9.5U HEPTACHLOR 9.5U HEPTACHLOR EPOXI 9.5U ALPIIA-BHC 9.5U BETA-BHC 9.5U GAMMA BIIC (LINDA 9.5U DELIA-BHC 9.5U ENDOSULFAN I (AL 9.5U DIELDRIN 9.5U 4,4'-DDT (P,P'-E 9.5U 4,4'-DDD (P,P'-E 9.5U 4,4'-DDD (P,P'-E 9.5U 4,4'-DDD (P,P'-E 9.5U ENDOSULFAN II (E 9.5U ENDOSULFAN II (E 9.5U ENDOSULFAN SULFA 49U CHLORDANE (TECH 73U PCB-1242 (AROCLO 73U PCB-1251 (AROCLO	ANE) PHA) DDT) DDE) DDD) BETA) ATE MIXTURE) /1 DR 1242) DR 1254)	73U PCB-1232 (AROCLOR 1232) 73U PCB-1248 (AROCLOR 1248) 73U PCB-1260 (AROCLOR 1260) 73U PCB-1016 (AROCLOR 1016) 360U TOXAPHENE CHLORDENE /2 BETA CHLORDENE /2 GAMMA-CHLORDENE /2 GAMMA-CHLORDENE /2 TRANS-NONACHLOR /2 ALPHA-CHLORDANE /2 CIS-NONACHLOR /2 CIS-NONACHLOR /2 OXYCHLORDANE (OCTACHLORE 9.5U ENDRIN KETONE 33 PERCENT MOISTURE	POXIDE) /2

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS. 2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

06/14/89 PESTICIDES/PCB'S DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG
CITY: ATHENS
COLLECTION START: 05/03/89 1815 STOP 00/00/00 PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL ** . . SOURCE: WESTINGHOUSE ELECT.
STATION ID: SD-02 SEDIMENT SOI! #02 * * * * UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS PCB-1232 (AROCLOR 1232) PCB-1248 (AROCLOR 1248) ALDRIN 900 900 HEPTACHLOR 120 HEPTACHLOR EPOXIDE 900 PCB-1260 (AROCLOR 1260) 120 120 ALPHA-BHC 900 PCB-1016 (AROCLOR 1016) 120 BETA-BHC 450U TOXAPHENE 120 GAMMA BHC (LINDANE) ---CHLORDENE ALPHA-CHLORDENE /2 BETA CHLORDENE /2 GAMMA-CHLORDENE /2 120 DEL IA-BHC 120 ENDOSULFAN I (ALPHA) ___ 120 DIELDRIN 4,4'-DDT (P,P'-DDT) 4,4'-DDE (P,P'-DDE) 4,4'-DDD (P,P'-DDD) 1-HYDROXYCHLORDENE 120 120 GAMMA-CHLORDANE TRANS-NONACHLOR /2 ALPHA-CHLORDANE /2 120 ENDRIN 120 120 ENDOSULFAN II (BETA) CIS-NONACHLOR ENDOSULFAN SULFATE OXYCHLORDANE (OCTACHLOREPOXIDE) /2 120 CHLORDANE (TECH. MIXTURE) /1
PCB-1242 (AROCLOR 1242)
PCB-1254 (AROCLOR 1254)
PCB-1221 (AROCLOR 1221) 610 METHOXYCHLOR ENDRIN KETONE 120 900 900 PERCENT MOISTURE 900

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

C-CONFIRMED BY GC/MS

1. WHEN NO VALUE IS REPORTED, SEE CHLORDANE CONSTITUENTS.

2. CONSTITUENTS OR METABOLITES OF TECHNICAL CHLORDANE.

APPENDIX C



Site Inspection Report

⊕EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

GA DOOBLASS 144

PART 1-SITE	ECCATION AND	MOPE	CHON INFORMA	TION		
II. SITE NAME AND LOCATION						
01 SITE NAME Lagar common or descriptive name of sites	,			ECIFIC LOCATION IDENTIFIER		
Westinghouse Electric Corpor	ation	1		dge Road		
Athens		6A	05 ZIP CODE	oscounty Clarke	07COUNT CODE	7 19 00 40 0/8*
09 COORDINATES LATITUDE LONGITUDE	TO TYPE OF OWNERSH					
33 58 21.0 083 23 44.0	F OTHER	L 0. FEL	ÆNAL	C. STATE I D. COUNTY I G. UNKNOV		'AL
01 DATE OF INSPECTION 02 SITE STATUS	03 YEARS OF OPERAT	TON			~~~~~	
05 03 99 ACTIVE		957 NNING YEA	1 Present	UNKNOWN		
D4 AGENCY PERFORMING INSPECTION CHOCK as INSE BODY!	1.					
A EPA SE BEAGONTRACTOR NUS Core	POCATION			INICIPAL CONTRACTOR	vame or time	
	ame of firms	□ G. OT	HER	Specify)		
05 CHIEF INSPECTOR	06 TITLE			07 ORGANIZATION	06 TELEPHON	
Rebecca A. Hoffmann		nenta	1 Scientist			
	10 TIPLE	i		11 ORGANIZATION	12 TELEPHON	-
Phillp Henderson	Geologi	<u>st</u>		NUS Corporation	1 (404) 422	- //10
Ron Young	Sample	r-		NUS Corporation	(404) 938	-7710
Ron Wilde	Sample			Nus Corporation	(404) 938	-7710
					()	
					()	
13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE Environmenta	1 1	SADORES8	ca Electric Caro.	18 TELEPHON	
Frank James	Control Offi	cer l	vesting new Jewton Bride	se Electic Corp. e Rd. Athens GA.	(404)548	-3121
					()	
					()	
					()	
					()	
					()	
17 ACCESS GAINED BY 18 TIME OF INSPECTION 19 WEATHER CONDITIONS S. PERMISSION 0820 \$\approx 69 F, clear and sunny WARRANT						
IV. INFORMATION AVAILABLE FROM						
01 CONTACT	02 OF Agency Organo	tanon:			03 TELEPHONE	NO
Mario Villamarzo	U.S.E.				(404)347	-5065
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	į.	ANIZATION	07 TELEPHONE NO.	OS DATE	. 1 .
Rebecca A. Hoffmann	u.s.E.P.A	Nus	Corporation	404-938-7710	05/3	0/70

	_	
1		
7/		

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE | 02 SITE NUMBER

6.A. DOC 3295144

•			PART 2 - WAST	E INFORMATION	•	GH IDOO	
II. WASTES	TATES, QUANTITIES, AN	D CHARACTER	ISTICS				
3 - 24 - SICAL S 4 - SCLO	E SLURRA E FINES XF LIQUIO E G GAS	DE MASTE DUANT	ITY AT SITE If waste quantities Independent	33 WASTE CHARACT X A TOXIC X B CORRO C RADIOA D PERSIS	CTIVE G FLAM	BLE X I HIGHLY THOUS JEAPLOS MABLE K REACT	NVE VE PAT'BLE
		NO OF DHOMS		<u> </u>			
III. WASTE T				,	·		
CATEGORY	SUBSTANCE N	AME		02 UNIT OF MEASURE	03 COMMENTS		
SLU	SLUDGE		unk	ļ			
OLW	OILY WASTE		unk				
SOL	SOLVENTS		unk				
PSO	PESTICIDES						·
occ	OTHER ORGANIC CH						
iOC	NORGANIC CHEMIC	ALS					
ACO	ACIOS	·	unk				
BAS	BASES		unk				
MES	HEAVY METALS		unk	L	<u> </u>		·
IV. HAZARD	OUS SUBSTANCES						
01 CATEGORY	02 SUBSTANCE N		03 CAS NUMBER	04 STORAGE DIS	POSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	Phosphoric ac	id	7664-38-2	5,55 gal.	drums	unk	
	hydrochloric a	acid	7647-01-0	5, 55 gal.	drums	unk	
	methyl ethyl Ki	etone	NONE	5, 55 901	drums	unk	
	kernsene'		NONE	5, 55 gal	drums	unk	
	xylene		1330-20-7	5, 55 gel	· drums		
	,			, ,			
	! !					<u> </u>	
V. FEEDSTO	CKS See ALLETON WCAS NAMOS	×s.	<u> </u>	L		<u> </u>	<u> </u>
CATEGORY	21 FEEDSTOCK		02 CAS NUMBER	CATEGORY	O1 FEEDSTO	OCK NAME	JZ CAS NUMBER
FOS	3 6250.00		OZ CAS NOMBER	 		JON WALL	32 3-3 10 102
FDS			 	FDS			
FOS			 	FDS			
FDS			 	FDS			
			L	FDS			
VI. SOURCE	S OF INFORMATION (CIT)	specific references, e.g.,	State Mes. Jampie anarysis	econs			
EPA	and state file	e mate	rial				

\$EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

1. IDENTIFICATION

01 STATE 02 SITE NUMBER

GA D003295144

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

W THE TABLE CONDITIONS AND INCIDENTS	The state of the s		
II. HAZARDOUS CONDITIONS AND INCIDENTS X. A. GROUNDWATER CONTAMINATION	02 _ OBSERVED (OATE)	* northware	- 411505m
13 POPULATION POTENTIALLY AFFECTED	34 NARRATIVE DESCRIPTION	A POTENTIAL	I ALLEGED
There is not a lineur	present at the	landfill	
01 X8 SURFACE WATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED	02 XOBSERVED DATE 05/03/87 1 04 NARRATIVE DESCRIPTION		ALLEGED
Sediment samples collect pathway revealed the pro	ted along possible si esence of inorganic	contaminati	on
01 XC CONTAMINATION OF AIR 03 POPULATION POTENTIALLY AFFECTED	02 TOBSERVED (DATE) 04 NARRATIVE DESCRIPTION	2 POTENTIAL .	ALLEGED
Contaminated soils on the	surface of the landf	ill are uncon	itained
01 _ D FIRE EXPLOSIVE CONDITIONS 03 POPULATION POTENTIALLY AFFECTED:	02 TOBSERVED (DATE) 04 NARRATIVE DESCRIPTION	_ POTENTIAL	ALLEGED
OIXE DIRECT CONTACT 03 POPULATION POTENTIALLY AFFECTED. There are no fences or the landfill.	02 = OBSERVED (DATE	• •	alleged
01 X F CONTAMINATION OF SOIL 23 AREA POTENTIALLY AFFECTED. ACTES ACTES	02 X OBSERVED (DATE: 05/03/89) 04 NARRATIVE DESCRIPTION	_ POTENTIAL .	ALLEGEO
01 G DRINKING WATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED:	02 TOBSERVED (DATE 1) 04 NARRATIVE DESCRIPTION	_ POTENTIAL	ALLEGED
01 TH WORKER EXPOSURE/INJURY 03 WORKERS FOTENTIALLY AFFECTED	02 OBSERVED (DATE.) 04 NARRATIVE DESCRIPTION	_ POTENTIAL	ALLEGED
01 XI POPULATION EXPOSURE INJURY 03 POPULATION POTENTIALLY AFFECTED:	02 _ OBSERVED (DATE) 04 NARRATIVE DESCRIPTION		ALLEGED
There is a population of 4-mile site radius.	of approximately 49,8	84 within	the

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

I. IDENTIFICATION OI STATE OZ SITE NUMBER

0003295144 PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS II. HAZARDOUS CONDITIONS AND INCIDENTS COMPOST 01 X J DAMAGE TO FLORA 04 NARRATIVE DESCRIPTION 02 TOBSERVED (DATE. X POTENTIAL I ALLEGED Contamination of surface soils has been documented at the landfill. 01 T K DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION of adename's prodeces. 02 COBSERVED (DATE: ____ I POTENTIAL I ALLEGED 01 IL CONTAMINATION OF FOOD CHAIN 02 TOBSERVED (DATE __ _ POTENTIAL I ALLEGED 04 NARRATIVE DESCRIPTION 01 T M UNSTABLE CONTAINMENT OF WASTES 02 COBSERVED (DATE __ - POTENTIAL I ALLEGED 03 POPULATION POTENTIALLY AFFECTED:_ 04 NARRATIVE DESCRIPTION 01 T N DAMAGE TO OFFSITE PROPERTY 02 TOBSERVED (DATE ____ **- POTENTIAL** I ALLEGED 04 NARRATIVE DESCRIPTION 01 I O CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 I OBSERVED (DATE: ___ I POTENTIAL I ALLEGED 04 NARRATIVE DESCRIPTION 01 TP ILLEGAL UNAUTHORIZED DUMPING I POTENTIAL 02 TOBSERVED (DATE __ I ALLEGED 04 NARRATIVE DESCRIPTION 05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS III. TOTAL POPULATION POTENTIALLY AFFECTED: 49.884 (air Dathway) IV. COMMENTS V. SOURCES OF INFORMATION (Cité apécific references, e.g. state fres. sample analysis. epotis-EPA, State file material

	POTENTIAL	HAZARDOU	S WASTE SITE		I. IDENT	TIFICATION
SEPA		TE INSPECT				02 SITE NUMBER
\	PART 4 - PERMIT A	AND DESCRIP	TIVE INFORMAT	ION	6A	Doo3295144
II. PERMIT INFORMATION						
DESTRIBUTE SELECTION OF THE PROPERTY OF THE PR	02 PERMIT NUMBER	C3 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS		
1 NPDES						
B UIC						
. C. AIR						
D RCRA						
E ACRA INTERIM STATUS						
F SPCC PLAN						
IG STATE SLACTY						
TH LOCAL SORCIV.						
I OTHER Species						
XJ YONE				landfill	used	1957-1970
II. SITE DESCRIPTION				<u> </u>		<u> </u>
1 STORAGE DISPOSAL Greck ail that activi	02 AMOUNT 03 UNIT OF M	EASURE 34 TR	EATMENT Check at that a	O(V)	05 OT	HER
A SURFACE IMPOUNDMENT			INCENERATION			
3 B. PILES		1	UNDERGROUND INJE	CTION	=	A BUILDINGS ON SITE
C DRUMS, ABOVE GROUND)	CHEMICAL PHYSICA		ł	
C D. TANK, ABOVE GROUND			BIOLOGICAL	-	1	
I E. TANK, BELOW GROUND			WASTE OIL PROCES	SING	38 ARE	EA OF SITE
XF LANDFILL	<u>unk.</u>		SOLVENT RECOVER		[
I G. LANDFARM	· · · · · · · · · · · · · · · · · · ·	_ G.	OTHER RECYCLING	RECOVERY		47:95.
TH OPEN DUMP		∫ ≡н.	OTHER		Ì	
_ I OTHER			Spe	Cafys		
						
TOOMMENTS Westinghouse d from 1957 t 900 feet north	isposed of	manuf	acturing i	vastes	in	a landfill
from 1957 +	n 1970. The	landfil	lis loca	ted as	DOCOX	imately
			اللهاما	2	Soct:	in house
900 teet north	least of the	e activi	e portion	, ot u	Jest	ingrouse,
V. CONTAINMENT						
1 CONTAINMENT OF WASTES Creck ones						
I A ADEQUATE, SECURE	A 8. MODERATE	C INADEQU	IATE, POOR	I D. INSECL	PRE. UNSC	DUND, DANGEROUS
2 DESCRIPTION OF DRUMS DIKING, LINERS.						, ,
The landfill ha There are seve landfill but no	is been cove	red usi	th soil a	nd is	hear	vily vegetate
There are save	and custive election	une la	icted on	the su	at-fac	e of the
landfill but in	tal restrictions	± 1004			,,,,,,	
landfill but no	T a significan	t van	wer.			
V. ACCESSIBILITY			 			
	:c = NO					
DE WASTE BASILY ACCESSIBLE X YE	:5 _ MU				_	
/ Di - L	- at wadar be	وروماك بداء	سالطاناه منسوان	الممريم عي	ince	idents

VI. SOURCES OF INFORMATION Cre specific references, e.g. state ries, vario e analysis i records.

EPA and state file material

	POTE	MTIAL MAZAL	RDOUS WASTE	: CITE	1. IDENTIFICATION
ŞEPA			TION REPORT	: 3115	01 STATE 02 SITE NUMBER
VLIA	PART 5 - WATER	-		NMENTAL DATA	GA 10003295144
II. DRINKING WATER SUPPLY					
31 TYPE OF DRINKING SUPPLY		02 STATUS			03 DISTANCE TO SITE
Theories aconcacies					33 333 73 33 75 33 75
SURFACE COMMUNITY A X	WELL B I	ENDANGERE A. I	ED AFFECTED B. I	MONITORED	1 2.5 m
NON-COMMUNITY C T	0 X	6. =	6. C	C. 2 27 F Ξ	A(mi) B(mi)
III. GROUNDWATER		L			
31 GROUNDWATER USE IN VICINITY CHECK	one,				
I A ONLY SOURCE FOR DRINKING	X8. DRINKING Other sources average COMMERCIAL. INI No other water source	DUSTRIAL, IRRIGATIO	"Limted othe	CIAL, INDUSTRIAL, IRRIGAT Prouces evangues	FION ID NOT USED UNUSEABLE
02 POPULATION SERVED BY GROUND WA	TER 11.4	-	03 DISTANCE TO NE	AREST DRINKING WATER	WELL(mi)
04 DEPTH TO GROUNDWATER	05 DIRECTION OF GRO	NUNDWATER FLOW	OB DEPTH TO AQUIF	ER 07 POTENTIAL YIEL	D 08 SOLE SOURCE AQUIFER
varies w/topography	varies		246	(m) 37440	_(gpd) KYES INO
09 DESCRIPTION OF WELLS INChang useege	, depth, and location relative to £	Population and buildings:			
There are 3 km	nown priv	ate wel	ls withi	in the 4-v	mile siteradius
O RECHARGE AREA			11 DISCHARGE AREA	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
XYES COMMENTS	urs in topogr	raphic highs:	X YES COMM		in topographic lows
IV. SURFACE WATER			<u> </u>		
)1 SURFACE WATER USE Check oner					
A RESERVOIR RECREATION DRINKING WATER SOURCE		N. ECONOMICALLY IT RESOURCES	□ Ç. COMME	RCIAL, INDUSTRIAL	C D. NOT CURRENTLY USED
32 AFFECTED POTENTIALLY AFFECTED 80	DIES OF WATER				
NAME.				AFFECTED	DISTANCE TO SITE
	,	<i>C</i> .			
Nove-there are			face usate	ec	(mil
migra len +rev	W INE SIL	<u> </u>			(mi)
V 05140004 0410 4410 000000	V INITOÒMATION				
V. DEMOGRAPHIC AND PROPERTY 21 TOTAL POPULATION WITHIN	TINFORMATION			02 DISTANCE TO NEARE	SET PORTU ATION
				UZ DISTANCE TO NEARE	IST POPULATION
	MO (2) MILES OF SITE		N MILES OF SITE 8 3-65 3 OF PERSONS		0.5 (mi)
33 NUMBER OF BUILDINGS WITHIN TWO (2)	MILES OF SITE		34 DISTANCE TO NE	AREST OFF-SITE BUILDING	
				0.3	(mil
S POPULATION WITHIN VICINITY OF SITE A	Provide parrative description of the	Assura of Consumor - 100	ساند و معدود بادم م		
Within a 4- descending po and industrial	nnile sit- rcentage, property.	e radius of rural	the ar	ea is com ped, reside	prised, in ential, commercial,

Q.EDA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

I. IDENTIFICATION

ACLV	PART 5 - WATER, DEMOGRAP	HIC, AND ENVIRONMENTAL DATA	GA D003295144		
VI. ENVIRONMENTAL INFORMA	ATION				
D. PERMEABILITY OF UNSATURATED 2	LONE Check (ne)				
A 10-5 - 10-	-5 cm sec _ 8 10-4 → 10-5 cm/sec }	※ C. 10 ⁻⁴ = 10 ⁻³ cm/sec	AN 10 ⁻³ cm/sec		
LE REPMEABILITY OF BECROOK 1964					
_ A :MPERN	MEABLE 8 RELATIVELY IMPERMEAI		RY PERMEABLE never them 10 T 2 cm sect		
DEDITION TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH			
<u>Varies</u>	(m)	<u>unk</u>			
JO NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	SITE SLOPE DIRECTION OF SITE SLO	PE TERRAIN AVERAGE SLOPE		
(in)	(in)	* east	3-4 16		
39 FLOOD POTENTIAL	٥٠				
SITE IS INYEAR FLO	DODPLAIN	RIER ISLAND, COASTAL HIGH HAZARD AREA, RI			
1.1 DISTANCE TO WETLANDS (5 acre minim	nuere :	12 DISTANCE TO CRITICAL MARITATION and angered as	ecat;		
ESTUARINE	OTHER		(mi)		
A(mi)	8(mi)	ENDANGERED SPECIES:			
13 LAND USE IN VICINITY					
DISTANCE TO	DECIDENTIAL ADEAS MATIN	DAIAL STATE DARWS			
COMMERCIAL INDUSTRI	RESIDENTIAL AREAS, NATIONAL STATE PARKS. AGRICULTURAL LANDS COMMERCIAL INDUSTRIAL FORESTS. OR WILDLIFE RESERVES PRIME AG LAND AG LAND				
A(m)	s <u>0.7</u>	(m) cank(ni) o. unk (mi)		
	is located on a rec facility. The land east. The arand underbrush.	idge approximately and slopes down rea is heavily veg	900 feet gradually etated with		
	N -Gite specific references, e.g., state files, sempre analys:	s reports:			
EPA and State	file material				

≎EPA	. F	POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT		SITE NUMBER
VLIA	P	ART 6 - SAMPLE AND FIELD INFORMATION	GA D	2003295144
II. SAMPLES TAKEN				
SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO		03 ESTIMATED DATE PESULTS AVAILABLE
GROUNDWATER				
SURFACE WATER				
WASTE				
AIA				
RUNOFF				
SPILL				
SOIL	7	Region IV Environmental Protestantical Service laboratory. Ather	ection Agenc	16/19/89
VEGETATION				
OTHER Sediment	a	same as above		6/19/89
III. FIELD MEASUREMENTS	TAKEN			
01 TYPE	02 COMMENTS			
				
			 	
IV. PHOTOGRAPHS AND MA	APS			
DI TYPE K GROUND I AER	RIAL	02 IN CUSTODY OF NUS Corporation	uga .	
77.000	tion of maps JUS Cordora	tion Region IV		
_ 70		ion , region (V		
V. OTHER FIELD DATA COL		cretion;		
A geophysica	1 survey w	as conducted to delineat	re areas	osovide
nazardous wa	este was al	leged to have been buried	and to	he selection
of sometime	locations s:	nformation that would a	de loc la	re detector
within the	area that	gnificant magnetic anoma was surveyed. Two locator samaling.	lines well	e were used
Atom where	toppeted for	or somaling		· -

EPA, State, and NUS Corporation file material

				SITE NUMBER DOOB 295/4		
			OWNER INFORMATION GA DOOSAS			
		PARENT COMPANY II SODIIC 20101				
	02 D+8 NUMBER	08 NAME		09 0 + 8 NUMBER		
poration	1	Westinghouse Electric	Corporation			
•	04 SIC CODE)	1	11 SIC CCDE		
60 67475	107 718 0005	11 Stanwix Street	1,300,001	1 10 5005		
)	1 .	1	1 . 1			
Теп	02 D+B NUMBER	OB NAME		15222 090+8 NUMBER		
	04 SIC CODE	10 STREET ADDRESS (# 0 Box. AFD #. etc.)		1 1 SIC CODE		
06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE		
	02 0+8 NUMBER	OB NAME	(9 0 + 8 NUMBER		
	04 SIC COD€	10 STREET ADDRESS (P.O. Box. AFO # arc.)		I I SIC CODE		
	`					
06 STATE	07 ZIP COD€	12 CITY	13 STATE	14 ZIP CODE		
	1					
	02 D+8 NUMBER	OS NAME		09 D+6 NUMBER		
	IO4 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD F. erc.)	1	11 SIC CODE		
06 STATE	07 ZIP CODE	12 CITY	13 STATE	1 4 ZIP CODE		
1 1)		IV. REALTY OWNER(S) IN applicable.				
	02 0+8 NUMBER	01 NAME	ľ	02 0+8 NUMBER		
	04 SIC CODE	O3 STREET ADDRESS /F D. Soz. RFD #. etc.	<u> </u>	04 SIC CODE		
	- }					
OSTATE	07 ZIP CODE	05 CITY	06 STATE	OT ZIP CODE		
				02 D+8 NUMBER		
	102 D+B NUMBER	O1 NAME	į	U2 U+B NUMBER		
	04 SIC CODE	03 STREET ADDRESS (P O Box. RFO # etc.)		04 SIC CODE		
06 STATE	07 ZIP CODE	OS CITY	DO STATE	07 ZIP CODE		
	02 0+8 NUMBER	01 NAME		02 D+8 NUMBER		
			Į			
	04 SIC CODE	03 STREET ADDRESS IF G GOE AFD # HC I		04 SIC CODE		
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ecinic references.	e g state ives samole analys	is regards	<u></u>			
mach	erial					
. vviace	-, ICI					
	OB STATE OB STATE OB STATE OB STATE OB STATE	02 D+8 NUMBER 04 SIC CODE 04 SIC CODE 06 STATE 07 ZIP CODE 06 STATE 07 ZIP CODE	OB STATE O7 ZIP CODE OB STATE O7 ZIP CODE	12 CITY		

\$EPA	
II. CURRENT OPERATO	P
01 NAME	
03 STREET ADDRESS # 2 9az	AFJ •
05 CITY	
OB YEARS OF OPERATION	9 NAM
OB YEARS OF OPERATION	
)R(S)

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 8 - OPERATOR INFORMATION

I. IDENT	IFICATION
01 STATE	02 SITE NUMBER
	0003295144

I. CURRENT OPERATO	Arovide 4 offerent from	owners		OPERATOR'S PARENT COMPANY III ADDITIONAL			
NAME			02 D+8 NUMBER	10 NAME		11 3+8 NUMBER	
STREET ADDRESS # 2 50	a 360 • 415		04 SIC CODE	12 STREET ADDRESS IP O BOE A	FD # erc .	13 SIC 200E	
SCITY		OS STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE	
YEARS OF OPERATION	09 NAME OF OWNER	L	L.,				
I. PREVIOUS OPERAT	OR(S) (Liet most recent for	st. provide on	ry if different from owner)	PREVIOUS OPERATORS'	PARENT COMPANIES	4664C 80497	
NAME			02 D+6 NUMBER	10 NAME		11 0+8 NUMBER	
STREET ADDRESS (P.O. Ac.	x, AFO # etc.)		04 SIC COD€	12 STREET ADDRESS (P.O. Box. R	FO e esc i	13 SIC CODE	
CITY		OG STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE	
YEARS OF OPERATION	09 NAME OF OWNER D	UPING THE	S PERIOO		· · · · · · · · · · · · · · · · · · ·		
NAME			02 D+8 NUMBER	10 NAME		11 D+8 NUMBER	
STREET ADDRESS (P O Boz	, AFD # etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box. AFD #, etc.)			
CITY		OS STATE	O7 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE	
YEARS OF OPERATION	09 NAME OF OWNER O	DURING THE	S PERIOD				
11 NAME		02 D+8 NUMBER	10 NAME		110-8 NUMBER		
STREET ADDRESS (P.O. Box.	. RFD # olc.)		04 SIC CODE	12 STREET ADDRESS IP O Box. A.	FD P. etc ;	13 SIC CODE	
CITY		06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE	
		T COMPANY TO COMPANY	S PERIOD				
YEARS OF OPERATION	09 NAME OF OWNER D	.,					

EPA and state file material

	1	POT	ENTIAL HAZ	ARDOUS WASTE SITE	I. IDENTIF	
⇔EPA				CTION REPORT		2 SITE NUMBER 2003295144
() L. / (PART	9 - G	ENERATOR/T	RANSPORTER INFORMATION	VII IE	203043114
II. ON-SITE GENERATOR						
31 NAME		020	+8 NUMBER			
Westinghouse Electric Com	pration					
DE STREET ADORESS IN SIGN PER PO			J4 SIC CODE	7		
Westinghouse Electric Com Newton Bridge Road			<u> </u>			
05 G/Y	30 314	= 1072	· - · · -			
Athens	6A	3	0613			
III. OFF-SITE GENERATOR(S)		V				
01 NAME		025	H38MÜN 8÷0	01 NAME		02 D+8 NUMBER
03 STREET ADDRESS . P 3 Bos . PFO . wic .			04 SIC CODE	O3 STREET ADDRESS # O Box. AFD # NC .		C4 SIC CODE
05 CITY	06 STATE	07 Z	P CODE	OS CITY	06 STATE	O7 ZIP CODE
01 NAME		020	+ 8 NUMBER	G1 NAME		02 D+8 NUMBER
03 STREET ADDRESS (P O Bos. RFD + erc.)		ــــا	04 SIC CODE	03 STREET ADDRESS (P.O. Box. RFD # etc.)		04 SIC CODE
L						
OS CITY	06 STATE	07 Z	CODE	05 CITY	06 STATE	07 ZIP CODE
IV. TRANSPORTER(S)		٠				
01 NAME		020	+8 NUMBER	01 NAME		02 D+8 NUMBER
DO STREET ADDRESS P O SOL PED P MC		L.,	04 SIC CODE	03 STREET ADDRESS (P.O. Box. AFD P. arc.)		04 SIC CODE
05 CITY	OG STATE	07 Z	IP CODE	05 CITY	OG STATE	07 ZIP CODE
O1 NAME		02 0	+6 NUMBER	01 NAME		02 0+8 NUMBER
03 STREET ADDRESS PO Box RFD # etc.			04 SIC CODE	03 STREET ADDRESS (# 0 Box. RFD + NC)		04 SIC CODE
05 CITY	OB STATE	07 2	OP CODE	05 CITY	00 STATE	07 ZIP CODE
						L
V. SOURCES OF INFORMATION (Cite speci	Ac references.	0.0 1	are files, sample analysis	-spansi		
EPA and State file	ma	te:	rial			
1						

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POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 10 - PAST RESPONSE ACTIVITIES

L. IDENTIFICATION

01 STATE 02 SITE NUMBER

GP D003295144

ACLY	PART 10 - PAST RESPONSE ACTIVITIES		GA	D003295144
II. PAST RESPONSE ACTIVITIES				
04 DESCRIPTION CLOSED	OZ DATE	03 AGENCY		
01 TEMPORARY WATER SUPPLY PROVIDED TO THE SUP	DED 32 DATE	03 AGENCY		
01 _ C PERMANENT WATER SUPPLY PROVIDED OF DESCRIPTION	DED 02 DATE	03 AGENCY		
01 TO SPILLED MATERIAL REMOVED 04 DESCRIPTION	02 DATE	03 AGENCY		
01 _ E. CONTAMINATED SOIL REMOVED 04 DESCRIPTION	02 DATE	03 AGENCY		
01 T F WASTE REPACKAGED 04 DESCRIPTION	02 DATE	03 AGENCY		
01 T G. WASTE DISPOSED ELSEWHERE 04 DESCRIPTION	02 DATE	03 AGENCY		
01 I H. ON SITE BURIAL 04 DESCRIPTION	02 DATE	03 AGENCY		
01 Z I IN SITU CHEMICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY		
01 T J IN SITU BIOLOGICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY		
01 I K IN SITU PHYSICAL TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY		
01 IL ENCAPSULATION 04 DESCRIPTION	02 DATE	03 AGENCY		
01 I M EMERGENCY WASTE TREATMENT 04 DESCRIPTION	O2 DATE	03 AGENCY		
31 IN CUTOFF WALLS 34 DESCRIPTION	DZ DATE	03 AGENCY		
01 0 0 EMERGENCY DIKING SURFACE WATE 04 DESCRIPTION	R DIVERSION 32 DATE	03 AGENCY		
01 E.P. CUTOFF TRENCHES SUMP 04 DESCRIPTION	D2 DATE	03 AGENCY		
01 TO SUBSURFACE CUTOFF WALL	D2 DATE	03 AGENCY		

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POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 10 - PAST RESPONSE ACTIVITIES

1. IDENTIFICATION
01 STATE 02 SITE NUMBER
6A D003995144

A DESCRIPTION	02 DATE	03 AGENCY	
1 I S CAPPING-COVERING 04 DESCRIPTION	02 DATE	03 AGENCY	
0) = T BULK TANKAGE REPAIRED	O2 DATE	03 AGENCY	
1 = U GROUT CURTAIN CONSTRUCTED 4 DESCRIPTION	02 DATE	O3 AGENCY	
1 = V BOTTOM SEALED 4 DESCRIPTION	02 DATE	03 AGENCY	
1 = W GAS CONTROL 4 DESCRIPTION	02 DATE	03 AGENCY	
1 = X. FIRE CONTROL 4 DESCRIPTION	02 DATE	03 AGENCY	
11 TY LEACHATE TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY	
1 Z. AREA EVACUATED 4 DESCRIPTION	02 DATE	03 AGENCY	
1 T 1 ACCESS TO SITE RESTRICTED 4 DESCRIPTION	O2 DATE	03 AGENCY	— — —
1 = 2 POPULATION RELOCATED 4 DESCRIPTION	G2 DATE	03 AGENCY	
1 = 3 OTHER REMEDIAL ACTIVITIES 4 DESCRIPTION	02 DATE	03 AGENCY	

III. SOURCES OF INFORMATION (Cite apecific interences e.g. state ties, sample analysis, reports)



POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

OI STATE 02 SITE NUMBER
GA DOO3295144

II. ENFORCEMENT INFORMATION

DI PAST REGULATORY ENFORCEMENT ACTION --ES X10

DZ DESCRIPTION OF FEDERAL INTATE LIBRAL REGULATORY ENFORCEMENT ACTION

NONE

III. SOURCES OF INFORMATION . Cre specific references, e.g., state hies, sample analysis, reports,

APPENDIX D

page _ of _

Background 1029

MAG FIELD DATA SHEET

Down hill

_	102	·		r	r		
	STAT	TION				Average	
	х	Y	Reading	Reading	Reading	(gammas)	Comments
	0	0	52588				
	O		52599				
L	6	2	52(02				
	0	3	62599				
L	0	4	52613			-	
	n	5	52630				
	0	6	52642				
	0	7	52657				
L	0	8	52676				
L							
L							

• 5	ield data sheet i	is an extension o	of Geophysical L	ogbook 🔑	7-1377	
Loca	tion Wesfi	ghouse	Albery	GA	Ave	52622
		•	•			•

File name West

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MAG FIELD DATA SHEET

STA	TION				Average	
Х	Υ	Reading	Reading	Reading	Average (gammas)	Comments
0	0	52690				
O		52453				
0	2	52569				
[2	3	53765				
0	4	52540				
0	5	52727				
0	6	53146				
0	7	52736				
0	8	52447				
0	9	52575				
0	10	53123				
0	[1	52195				
0	12	52396				
	0	52625				
	1	52716				
	2	52616				
	3	52614				
	4	52772				
	5	52899				
	6	53277				
	7 *	53427				
	8	52249				
	9	51793				
	10					
	11					

*	Field data sheet is an extension of Geophysical Logbook	
	and a -	

MAG FIELD DATA SHEET

STA	TION				Average	
×	Y	Reading	Reading	Reading	Average (gammas)	Comments
a	0	52602				
1	1	52641				
	2	52679				
	3	52751				
	4	52848				
	5	52532				
	6	52483				
	7	52407				
	8	52348				
	9	52486				
Y	10	52516	,			
3	0	52642				
	1	52613				
	a	52556				
	3	52641				
	4 *	52744				
	5	52486				
	6	52591				
i	2	52488				
	4	52502				
\	9	52538				
4	0	52572				
		52545				
	2	52623				
	3	52771				

•	Field data sheet is an extension of Geophysical Logbook
Loc	tation

MAG FIELD DATA SHEET

STA	TION					
×	Y	Reading	Reading	Reading	Average (gammas)	Comments
4	4	52866				
	5	52535				
	6	52420				
	2	52523				
	8	52527				
V	9	52556				
-1	0					
	1					
	2		×			
	3					
	4	52544				
	5	52450				
	6	59279				
	7	53242				
	б	53420				
	9	53200				
	10	52737				
	()	52848				
V	12	53438				
		<u> </u>				

•	Field data sheet is an extension of Geophysical Logbook	
Lo	cation	

)))	}	1 1 1	 . J

HAZARD RANKING SYSTEM SCORING SUMMARY

FOR

UESTINGHOUSE ELECTRIC CORPORATION/ATHENS
EPA SITE NUMBER GADOOSS95140
ATHENS
CLARKE COUNTY, GA
EPA REGION: 4

SCORE STATUS: IN PREPARATION

OCORED BY R.HOFFMANN OF NUS CORPORATION ON 05/22/90

DATE OF THIS REPORT: 05/22/90
DATE OF LAST MODIFICATION: 05/22/90

GROUND WATER ROUTE SCORE: 19.05
SURFACE WATER ROUTE SCORE: 38.67
AIR ROUTE SCORE: 0.00

MIGRATION SCORE : 20.92

Facility name: Westelax Location: 100 Newton Bridge Road Athens Person(s) in charge of the facility: Bob Mills General description of the facility: (For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.) (Sgw =/7/13 Ssw = 25.85-Sa = ret = scred) SFE = Not scored SDC = O

FIGURE 1 HRS COVER SHEET

C-1

	 _		Ground Water	Route Work St	neet		<u> </u>	
	Rating Factor		Assigned (Circle		Multi- plier	Score	Max. Score	Ref. (Section)
1	Observed Release		<u>O</u>	45	1	ن	45	3.1
	If observed release	_						
2	Route Characterist Depth to Aquifer Concern		0 1 2	3	2	4	6	3.2
	Net Precipitation Permeability of to	he	0 1 3	3 3	1 1	2 2	3 3	
	Physical State		0 1 2	<u>(3)</u>	1	3	3	
			Total Route Char	acteristics Scor	е	11	15	
3	Containment	<u></u>	0 1 2	<u></u>	1	3	3	3.3
4	Waste Characteris Toxicity/Persiste Hazardous Waste Quantity	ence	0 3 6 0 1 <i>2</i>	9 (12) 15 18 3 4 5 6 7	1 8 1	12	18 8	3.4
			Total Waste Cha	racteristics Scor	re	14	26	
5	Targets Ground Water U Distance to Neal Well/Population Served	rest	0 1 (2 0 4 6 12 16 18 24 30 32	3 8 8 10 3 20 2 35 40	3	6	9 40	3.5
<u></u> [6]	If line 1 is 45,	multiply	Total Targ	gets Score		27	49	
7			$2 \times 3 \times 4$ and multiply by 1	× 5	S _{gw} =	17.7	57,330	

FIGURE 2
GROUND WATER ROUTE WORK SHEET

Surface Water Route Work Sheet							
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)		
1 Observed Release	6 45	1	0	45	4.1		
1	en a value of 45, proceed to line 4. en a value of 0, proceed to line 2.						
Route Characteristics Facility Slope and Inter	vening Ø 1 2 3	1	0	3	4.2		
Terrain 1-yr. 24-hr. Rainfall Distance to Nearest Su Water	0 1 ② 3 rface 0 1 ② 3	1 2	2 4	3 6			
Physical State	0 1 2 🔊	1	3	3			
	Total Route Characteristics Score		9	15			
3 Containment	0 1 2 (3)	1	3	3	4.3		
Waste Characteristics Toxicity/Persistence Hazardous Waste Quantity	0 3 6 9 (12) 15 18 0 1 (2) 3 4 5 6 7 8	1	/2 2	18 8	4.4		
	Total Waste Characteristics Score		14	26			
5 Targets Surface Water Use Distance to a Sensitive Environment	0 1 2 3	3 2	9	9 6	4.5		
Population Served/Dist to Water Intake Downstream	ance 0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	35	40			
	Total Targets Score		44	55			
	y 1 x 4 x 5 2 x 3 x 4 x 5		16632	64,350			
7 Divide line 6 by 64,35	0 and multiply by 100	S _{sw} =	25.5	35			

FIGURE 7
SURFACE WATER ROUTE WORK SHEET

	Air Route Work Sheet	not	s corea	1	
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section
Observed Release	0 45	1		45	5.1
Date and Location:					
Sampling Protocol:					
	0. Enter on line 5. ceed to line 2.				
Waste Characteristics Reactivity and	0 1 2 3	1		3	5.2
Incompatibility Toxicity Hazardous Waste Quantity	0 1 2 3 0 1 2 3 4 5 6 7	3 ' 8 1		9 8	
		· · · · · · · · · · · · · · · · · · ·			
	Total Waste Characteristics Sco	re		20	
Targets Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	5.3
Distance to Sensitive Environment Land Use	0 1 2 3	2		6 3	
Latio Use	0 1 2 3			3	
	Total Targets Score			39	<u> </u>
4 Multiply 1 x 2 x 3]			35,100	
5 Divide line 4 by 35,100	and multiply by 100	S _a =	•		

FIGURE 9 AIR ROUTE WORK SHEET

	s	s²
Groundwater Route Score (Sgw)	17.73	314.35
Surface Water Route Score (S _{SW})	25,85	668.22
Air Route Score (Sa)	not scored	
$s_{gw}^2 + s_{sw}^2 + s_a^2$		982.57
$\sqrt{s_{gw}^2 + s_{sw}^2 + s_a^2}$		31.35
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		18.12

FIGURE 10 WORKSHEET FOR COMPUTING $\mathbf{S}_{\mathbf{M}}$

	Fire a	nd	Exp	olos	ion	W	ork :	She	et	110	L Scar	red	
Rating Factor	A	ssig (Cir	ne cle	d V	alu ie)	е				Multi- plier	Score	Max. Score	Ref. (Section)
1 Containment	1					3				1		3	7.1
Waste Characteristics Direct Evidence Ignitability Reactivity Incompatibility Hazardous Waste Quantity	0	1 1 1 1	2	3	4	5	6	7	8	1 1 1 1		3 3 3 3 8	7.2
	Total Was	ste (Cha	ırac	teri	stic	s \$6	ćore	<u></u> -			20	
3 Targets Distance to Nearest	0	1	2	3	4	5				1		5	7.3
Population Distance to Nearest	0	1	2	3						1		3	
Building Distance to Sensitive	0	1	2	3						1		3	
Environment Land Use	0	1	2	3						1		3	
Population Within		i			4	5				1		5	
2-Mile Radius Buildings Within 2-Mile Radius	0	1	2	3	4	5				1		5	
	To	tal	Tar	get	s S	cor						24	
Multiply 1 x 2 x	3											1,440	
5 Divide line 4 by 1,440 and multiply by 100 SFE =													

FIGURE 11
FIRE AND EXPLOSION WORK SHEET

		Direct Contact Work Sheet			i	
	Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Max. Score	Ref. (Section)
	Observed Incident	0 45	1	0	45	8.1
	If line 1 is 45, proceed to 1 is 0, proceed to 1					
2	Accessibility	<u>(a)</u> 1 2 3	1	0	3	8.2
3	Containment	0 (15)	1	15	15	8.3
4	Waste Characteristics Toxicity	0 1 ② 3	5	10	15	8.4
5	Targets Population Within a 1-Mile Radius Distance to a	0 1 2 3 4 5	4	16	20 12	8.5
	Critical Habitat					
		Total Targets Score		1/	32	
<u></u>	If line 1 is 45, multiply	1) x 4 x 5	<u> </u>	16	JZ	
		2 × 3 × 4 × 5		Ö	21.600	
	Divide line 6 by 21,600	and multiply by 100	s _{DC} =	0		

FIGURE 12 DIRECT CONTACT WORK SHEET

HRS REFERENCES

- 1. Topp, Elizabeth G., 1988. Trip Report Westclox, Inc. (April 11, 1988). Georgia Department of Natural Resources, Environmental Protection Division.
- 2. Knowles, Gilda A., 1985. Preliminary Assessment Westclox, Inc. (GAD057297400). Georgia Department of Natural Resources, Environmental Protection Division.
- Glass, Gwendolyn, 1985. Trip Report Westclox, Inc. (May 1, 1985).
 Georgia Department of Natural Resources, Environmental Protection Division.
- 4. Barefoot, Howard L., 1985. Notice of Violation of Generator Requirements-Westclox, Inc. (June 10, 1985). Georgia Department of Natural Resources, Environmental Protection Division.
- 5. Topp, Elizabeth G., 1988. Trip Report Westclox, Inc. (April 21, 1988).

 Georgia Department of Natural Resources, Environmental Protection
 Division.
- 6. U.S. Geological Survey. Topographic Quadrangles: Nicholson, Georgia (Photorevised 1985), Hull, Georgia (1964), Athens East, Georgia (Photorevised 1986), Athens West, Georgia (Photorevised 1984).
- 7. Carter, Ralph, City of Athens Water Superintendent. Record of Telephonic Conversation with Elizabeth Topp, Georgia Environmental Protection Division (April 8, 1988).
- 8. Carter, Ralph, City of Athens Water Superintendent. Record of Telephonic Conversation with Elizabeth Topp, Georgia Environmental Protection Division (April 13, 1988).
- 9. Robertson, Stanley M., Soil Conservation Service, 1968. Soil Survey of Clarke and Oconee Counties, Georgia. U.S. Department of Agriculture.
- U.S. Geological Survey, 1984. Ground Water Data for Georgia. Open - File Report 85-331.
- 11. Reed, Danny, 1988. Laboratory Report Westclox, Inc. (April 22, 1988)
 Georgia Department of Natural Resources, Environmental Protection
 Division.
- 12. Code of Federal Regulations, 1987. Uncontrolled Hazardous Waste Site Ranking System; A Users Manual. 40 CFR Part 300, Appendix A.
- 13. U.S. Department of Interior, Fish and Wildlife Service, 1985. Region 4 Endangered Species Notebook.

APR 1 1 1985

4WD-SISB

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Frank James Environmental Control Officer Westinghouse Electric Corporation Newton Bridge Road Athens, Georgia 30613

RE: Westinghouse Electric Corporation GADO03295144

Dear Mr. James:

The United States Environmental Protection Agency (EPA), pursuant to the sutherity and requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42, U.S.G. 960E/etc. seq., as amended by the Superfund Amendments and Reauthorisation Act (SARA), Public Law 99-499, is planning to conduct an investigation of the above-referenced site. The Westinghouse Electric Corporation is located on Newton Bridge Boad, Athens, Georgia. EPA has reason to believe that there may be a release or threat of a release of hazardous substances from the site into the surrounding environment. The purpose of the investigation is to determine the nature and extent of contamination at the site and to determine what, if any, further response action would be appropriate.

As per my telephone conversation on April 7, 1989 with Harry Bryan, EFA was granted permission for access to your property on or about April 17, 1989 and continuing through the completion of the investigation on or about May 5, 1989. Activities to be conducted during the investigation include:

- 1. Inspect; sketch, and photograph the premises;
- 2. Collect surface and subsurface soil samples;
- 3. Collect groundeter and subsurface water samples;
- 4. Collect sediment samples;
- 5. Conduct air menitoring;

6. Transtation of equipment onto and about the site as necessary to accomplish activities above, including trucks and sampling equipment.

The above sampling activity will be conducted by personnel from EPA Region IV's Field Investigation Team (FET). Rebecca Hoffman of FIT will contact you prior to the actual site visit to make final arrangements and note any changes.

Split samples will be made available if requested. However, you will be required to furnish your own containers as well as your own laboratory analyses.

If you have any questions, please contact me at (404) 347-5065. Your cooperation in this matter is appreciated.

Sincerely,

Kenneth A. Lucse Environmental Engineer EPA Project Menager

cc: Geoffrey Carton, MUS Corporation-

KL:aa:04/10/89:Doe access 1/2:5065

Nyu

OVERSIZED DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E. ATLANTA, GEORGIA 30365

Mr. Frank Jones Westinghouse Electric Corporation Newton Bridge Road Athens, Georgia 30613

RE: Westinghouse Electric Corporation Athens, Georgia GAD003295144

Dear Mr. Jones:

Enclosed is one (1) copy of the analytical results for inorganic and organic analyses of samples collected at the Westinghouse Electric Corporation site.

Should you have any questions, please call me at (404) 347-5065.

Sincerely yours,

Mario F V

Mario E. Villamarzo Georgia Project Officer WMD, SAS

cc: Rebecca Hoffman, NUS Corporation

YELLOW



INSTEL STATES ELMIRONMENTAL PROTECTION ALEAS.

REGION IV

ENVIRONMENTAL SERVICES LIVISION ATHENS, GEORGIA SCENS

MEMORANDUM

DATE:

June 14, 1989

SUBJECT:

Screening Site Inspection Study Plans

FROM:

Pat Stamp / Stam?

Laboratory Quality Control Specialist
Laboratory Evaluation & Quality Assurance Section

TO:

Al Hanke, Chief

Site Assessment Section

Site Investigation & Support Branch, WASTMD

THRU:

Wade Knight, Chief

Laboratory Evaluation & Quality Assurance Section

We have reviewed the following subject documents and have no comments:

- Westinghouse Electric Corp., Athens, GA, Revision 1. 1.
- 2. Chapel Estates Abandoned Drum Dump, Greer, SC.
- 3. Old Simpsonville Dump #2, Simpsonville, SC.

SISBISAS lpa - algion iv

ATLANTA, GAL



June 2, 1989

Mr. Doug Lair Environmental Protection Agency College Station Road Athens, Georgia 30613

Subject:

Study Plan - Revision 1

Screening Site Inspection - Phase II

Athens, Clarke County, Georgia

TDD No. F4-8903-40

Dear Mr. Lair:

Enclosed please find two (2) copies of the Study Plan for the Screening Site Inspection that was conducted at the above-referenced site during the week of May 1, 1989.

If you have any questions concerning the project, please contact me at NUS.

Very truly yours,

Rebecca Hoffmann

Project Manager

RH/dwf

Enclosures (2)

Approved

Many Hame

JUN 1 2. 89

C-586-6-9-20





JUN 0 2 1989 SISB/SAS

C-586-5-9-202

May 31, 1989

Mr. Ken Lucas
Site Investigation and Support Branch
Waste Management Division
Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, Georgia 30365

Subject:

Westinghouse Electric Corporation

Athens, Clarke County, Georgia

TDD No. F4-8903-40

Dear Mr. Lucas:

Previous to the Screening Site Inspection field activities, an onsite reconnaissance was performed at the Westinghouse Electric Corporation landfill. Boundaries of the landfill were identified during the reconnaissance. However, the exact locations of subsurface waste materials were still unknown. Since subsurface soil sampling was scheduled to be conducted at the landfill during the Screening Site Inspection, we wanted to outline accurately waste materials via a geophysical screening. The reason being that site history indicated the presence of buried drums, and we did not intend to auger into the unknown. Exact sampling locations would be determined after delineating subsurface disposal areas.

If you have further questions regarding rationale for the geophysical screening study at Westinghouse, please call me at NUS Corporation.

Very truly yours,

Rebecca Haffmann

Rebecca Hoffmann Project Manager

RH/kw

Approved:

ug Schank



June 2, 1989



C-586-6-9-21

Mr. A.R. Hanke Site Investigation and Support Branch Waste Management Division Environmental Protection Agency 345 Courtland Street, N. E. Atlanta, Georgia 30365

Subject:

Study Plan - Revision 1

Screening Site Inspection - Phase II Westinghouse Electric Corporation Athens, Clarke County, Georgia EPA ID No. GAD003295144 TDD No. F4-8903-89

Dear Mr. Hanke:

Enclosed please find one (1) copy of the Study Plan for the Screening Site Inspection that was conducted at the above-referenced site during the week of May 1, 1989.

If you have any questions concerning the project, please contact me at NUS.

Very truly yours,

Approved

Rebecca Hoffmann Project Manager

Rebecca Hoffmann

RH/gwn

Enclosure (1)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV COLLEGE STATION RD. ATHENS, GA. 30613

*****MEMORANDUM*****

DATE: 05/31/89

SUBJECT: Results of Purgeable Organic Analysis;

89-400 WESTINGHOUSE ELECT.

ATHENS GA

FROM: Tom B. Bennett, jr.
Chief, Organic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT





JUN 0 2 1989 SISB/SMS

C-586-5-9-202

May 31, 1989

Mr. Ken Lucas
Site Investigation and Support Branch
Waste Management Division
Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, Georgia 30365

Subject:

Westinghouse Electric Corporation

Athens, Clarke County, Georgia

TDD No. F4-8903-40

Dear Mr. Lucas:

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If you have further questions regarding rationale for the geophysical screening study at Westinghouse, please call me at NUS Corporation.

Very truly yours,

Rebecca Haffmann
Rebecca Hoffmann

Project Manager

RH/kw

Approved:

reg Schank

05/30/89

*NAI-INTERFERENCES
*NA-NOT ANALYZED
*NAI-INTERFERENCES
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*I-ACT LUIED BY: R YOUNG ST: GA * * START: 05/04/89 1035 STOP: 00/00/00 UG/KG ANALYTICAL RESULTS 1600 CIS-1,3-DICHLOROPROPENE METHYL ISOBUTYL KETONE 16000 160U TOLUENE TRANS-1, 3-DICHLOROPROPENE 1, 1, 2-TRICHLOROETHANEUHLOROFI.UOROMETHANE 1600 1600 1,1-DICHLOROETHENE(1,1-DICHLOROETHYLENE) TETRACHLOROETHENE (TETRACHLOROETHYLENE) . טטט 1600 ACETONE
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REMARKS***

REMARKS

FOOTNOTES*** *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/30/89

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT.
STATION ID: SS-03 SURFACE SOIL #03 PROG FLEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA ** COLLECTION START: 05/04/89 1035 STOP: 00/00/00 ** ** * *

ANALYTICAL RESULTS UG/KG

TRIMEIHYLBENZENE 200JN PETROLEUM PRODUCT

FOOTNOTES

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.





JUN 0 2 1989 Sis B/SMS

C-586-5-9-202

May 31, 1989

Mr. Ken Lucas Site Investigation and Support Branch Waste Management Division Environmental Protection Agency 345 Courtland Street, N. E. Atlanta, Georgia 30365

Subject:

Westinghouse Electric Corporation

Athens, Clarke County, Georgia

TDD No. F4-8903-40

Dear Mr. Lucas:

Previous to the Screening Site Inspection field activities, an onsite reconnaissance was performed at the Westinghouse Electric Corporation landfill. Boundaries of the landfill were identified during the reconnaissance. However, the exact locations of subsurface waste materials were still unknown. Since subsurface soil sampling was scheduled to be conducted at the landfill during the Screening Site Inspection, we wanted to outline accurately waste materials via a geophysical screening. The reason being that site history indicated the presence of buried drums, and we did not intend to auger into the unknown. Exact sampling locations would be determined after delineating subsurface disposal areas.

If you have further questions regarding rationale for the geophysical screening study at Westinghouse, please call me at NUS Corporation.

Very truly yours,

Approved:

Tug Schank

Rebecca Hoffmann Project Manager

Rebecca Haffmann

RH/kw

STUDY PLAN **SCREENING SITE INSPECTION** WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA EPA ID #: GAD003295144

Prepared Under TDD No. F4-8903-40 CONTRACT NO. 68-01-7346

Revision 1

FOR THE

WASTE MANAGEMENT DIVISION U.S. ENVIRONMENTAL PROTECTION AGENCY

May 26, 1989

NUS CORPORATION SUPERFUND DIVISION

Prepared By

Reviewed By

Approved By

Rebecca A. Hoffmann

Project Manager

Assistant Regional

Project Manager

Regional Project Manager

NOTICE

The information in this document has been funded wholly by the United States Environmental Protection Agency (EPA) under Contract Number 68-01-7346 and is considered proprietary to the EPA.

This information is not to be released to third parties without the expressed or written consent of the EPA.

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STUDY PLAN

SCREENING SITE INSPECTION WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

EPA ID #GAD003295144 TDD NO. F4-8903-40

1.0 INTRODUCTION

The NUS Corporation Region 4 Field Investigation Team (FIT) has been tasked by the U.S. Environmental Protection Agency (EPA), Waste Management Division to conduct a Screening Site Inspection (SSI) at the Westinghouse Electric Corporation facility in Athens, Clarke County, Georgia. The investigation will be performed under the authority of the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The task will be performed to satisfy the requirements stated in Technical Directive Document (TDD) number F4-8903-40.

1.1 Objectives

The objectives of this sampling investigation are to collect information to assist in developing a site-specific preliminary HRS score and to determine if further investigation is required at this site.

Specific elements are:

- Obtain information to prepare a site specific preliminary HRS
- Provide EPA the necessary information to make decisions on any other actions warranted at the site.

1.2 Scope of Work

The scope of this investigation will include the following activities:

Obtain and review background materials relevant to HRS scoring of site

Obtain aerial photographs and maps of site, if possible

Obtain information on local water systems

Evaluate target population within a 4-mile radius of the site with regard to

groundwater use, surface water use, and possibility of direct contact or fire and

explosion hazard

Conduct a survey of private wells

Determine location and distance to nearest potable well

Develop a site sketch

Conduct a geophysical screening of site to determine areas of potential waste burial, if

applicable

Collect environmental samples

1.3 Schedule

Week of May 1, 1989

1.4 **Personnel**

Project Manager - Rebecca Hoffmann

Other personnel: Donnie McCurry

Phillip Henderson

Ron Wilde

-2-

1.5 <u>Permits and Authorization Requirements</u>

EPA is responsible for obtaining access to the site and permission to take photographs of site. In addition, EPA is responsible for all permits which may be required to accomplish this task.

1.6 Site History and Description

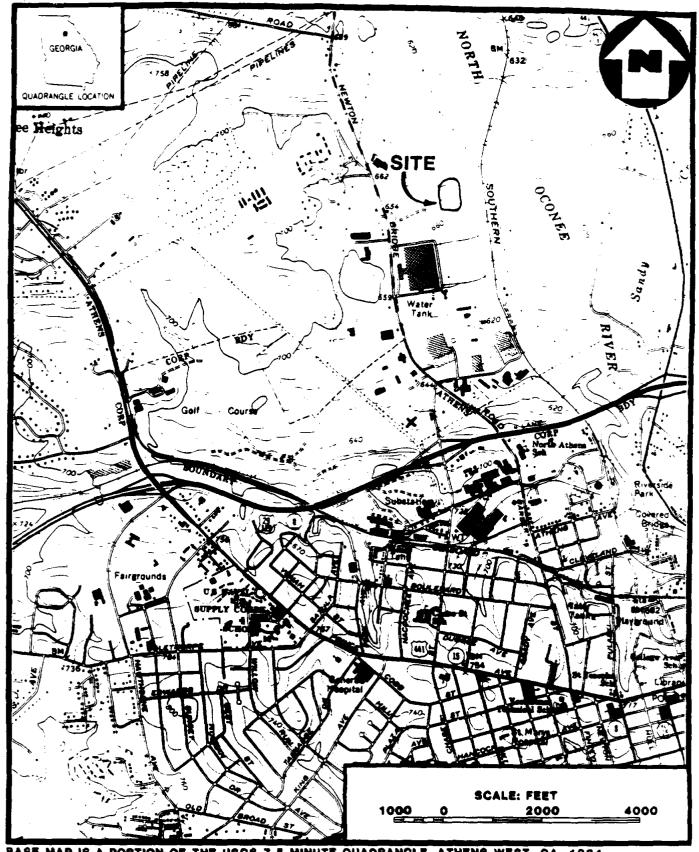
The Westinghouse Electric Corporation is located approximately 1 mile north of Athens, Clarke County, Georgia (Refs. 1, 2) (Figure 1). The Westinghouse landfill is located 800 feet north of the northeast corner of the facility, and is approximately one acre (Ref. 1) (Figure 2).

Westinghouse Electric manufactures and repairs overhead distribution transformers. Between the years of 1958 and 1970, wastes including paint and enamel filter media, waste oil, paint, paint solvents, acid cleaners and sludge from cleaning out tanks were disposed of in the landfill. It is believed that the wastes were containerized in fiber containers, 5-gallon and 55-gallons metal drums prior to disposal (Ref. 10). Sometime after 1970 the landfill was backfilled, and the site is now heavily vegetated (Ref. 3).

1.7 Regional Hydrogeology

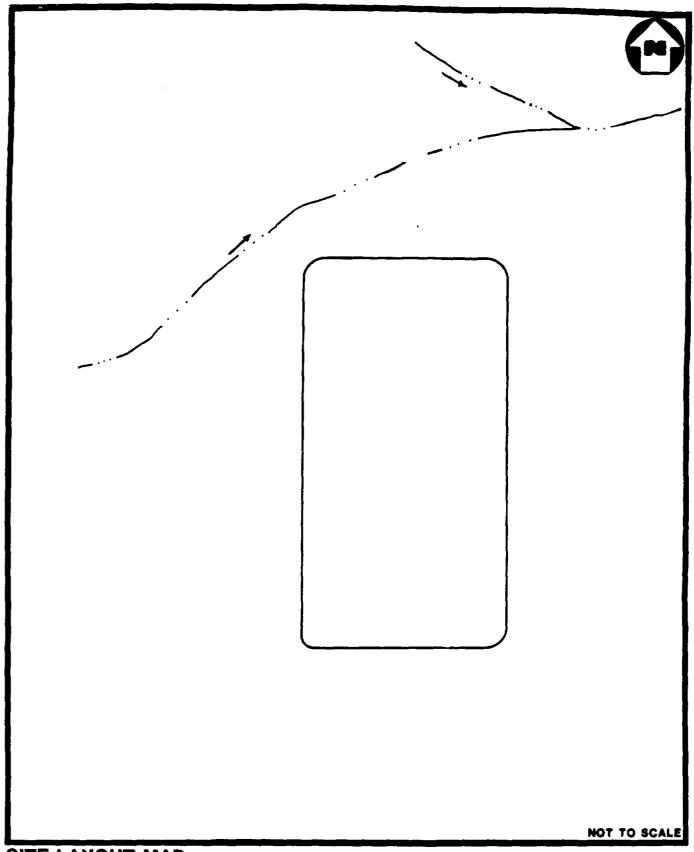
The site is located in the Piedmont physiographic province. The rocks underlying this province are massive igneous and metamorphic rocks of relatively low permeability (Ref. 4, pp. 4, 5). The Athens area has a relatively mild climate. Temperatures average 42°F in January, and 79°F in July (Ref. 5, p. 2). Average annual rainfall is 48 inches (Ref. 6, p. 43). There are two periods of peak rainfall, one in the late winter and one in mid-summer (Ref. 5, p. 5). Net annual precipitation is 7 inches (Ref. 6, pp. 43, 63).

The aquifer used in the study area can be characterized as a crystalline rock aquifer. In this aquifer, groundwater is stored in the unconsolidated material overlying the crystalline rock and within fractures that have formed in the crystalline rock (Ref. 4, p. 12). The residual soils (Regolith) overlying bedrock are capable of storing large quantities of groundwater and well yields are generally highest in areas that have a thick regolith that is saturated with water (Ref. 7, pp. 8-11).



BASE MAP IS A PORTION OF THE USGS 7.5 MINUTE QUADRANGLE, ATHENS WEST, GA. 1984.
SITE LOCATION MAP
WESTINGHOUSE ELECTRIC CORPORATION
ATHENS, GEORGIA





SITE LAYOUT MAP WESTINGHOUSE ELECTRIC CORPORATION ATHENS, GEORGIA

FIGURE-2



The site is underlain by amphibolite interlayered with biotite schist and biotite gneiss. Wells intercepting contact zones between these rock units often have increased permeability as do wells that intersect fault zones. Well yields range from 20 to 225 gallons per minute, with an average yield of 52 gallons per minute. The average depth of wells in the Athens area is 246 feet with a typical casing depth of 69 feet (Ref. 7, plate 1). Few wells are completed to depths greater than 400 feet due to a decrease in the size and number of fractures within the rock below this depth (Ref. 7, p. 9).

Groundwater recharge occurs in topographic highs and groundwater discharge occurs in topographically low areas. The depth to the water table is also dependent on local topography. The water table may be at or near land surface in stream valleys. However, on steep hills or narrow ridges the depth to the water table may be much greater (Ref. 7, p. 11).

Groundwater flow in the regolith is unconfined and follows local topographic gradients (Ref. 7, p. 11). Groundwater flow within fractures of the underlying crystalline rock is influenced by fracture orientation. Wells penetrating deeper fracture systems may intercept groundwater that is under confined conditions.

There are private wells utilizing the aquifer in Clarke County. However, none could be identified within a 4-mile site radius.

The municipal water supply is drawn from two water intakes and serves 23,000 connections. One intake is located on the Middle Oconee River approximately 3.2 miles southwest of the site. It is not downstream from the site. The other intake is located on the North Oconee River 2.6 downstream miles from the site.

2.0 GEOPHYSICAL SCREENING

A geophysical screening will be conducted at the site for the purposes of delineating the landfilled portion of the site. Since the exact location of waste disposal is unknown it is felt that geophysical techniques provide the most viable alternative for locating subsurface waste materials associated with these areas. The most suitable geophysical techniques applicable in this geologic setting are believed to be electromagnetics and/or magnetics. If proper subsurface conditions exist at the site these techniques will provide the necessary data needed to accurately define any subsurface waste materials. The results will then be used in determining optimum sampling locations.

Instruments to be used will include a non-contacting ground conductivity meter (Geonics-EM-31) and a proton precession magnetometer (Geometrics - G-856). A summary of geophysical methods is provided in Appendix A.

3.0 SAMPLING INVESTIGATION

The sampling investigation will include the collection of surface soil, subsurface soil, surface water, sediment and groundwater samples. Samples will be analyzed for the complete Target Compound List (TCL) and analyses will be performed under the Contract Laboratory program (CLP).

3.1 Surface Soil Sampling

Four surface soil samples will be collected, including a background sample taken southwest of the landfill. Sample codes and descriptions are present in Table 1. The locations of the proposed samples are shown in Figure 3.

3.2 <u>Subsurface Soil Sampling</u>

Four subsurface samples will be collected including a background as described in Table 1. Three subsurface soil samples will be collected from the suspected disposal area.

3.3 Surface Water and Sediment Sampling

Two surface water and two sediment samples will be collected from an unnamed creek along the drainage pathway. Two surface water and two sediment samples will be collected to establish background conditions. Sample codes and descriptions are provided in Table 1. Sample locations are shown in Figure 3.

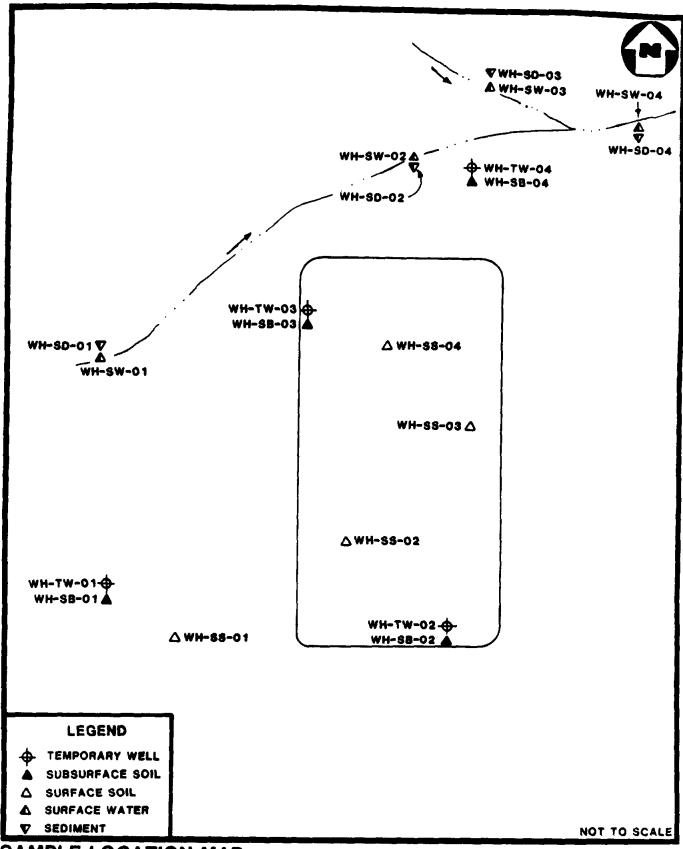
3.4 Groundwater Sampling

Four groundwater samples will be collected from the locations shown in Figure 3. A background sample will be collected from a temporary well located upgradient of the site. Three groundwater samples will be collected from temporary wells located in the suspected disposal areas.

TABLE 1

SAMPLE CODES, DESCRIPTIONS, AND LOCATIONS WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

Sample Code	Description	Location/Rationale
WH-TW-01	Groundwater	Offsite - characterize background conditions
WH-TW-02	Groundwater	Onsite-determine presence or absence of contamination
WH-TW-03	Groundwater	Onsite-determine presence or absence of contamination
WH-TW-04	Groundwater	Onsite-determine presence or absence of contamination
WH-SS-01	Surface Soil	Offsite - characterize background conditions
WH-SS-02	Surface Soil	Onsite-determine presence or absence of contamination
WH-SS-03	Surface Soil	Onsite-determine presence or absence of contamination
WH-SS-04	Surface Soil	Onsite-determine presence or absence of contamination
WH-SB-01	Subsurface Soil	Offsite - characterize background conditions
WH-SB-02	Subsurface Soil	Onsite-determine presence or absence of contamination
WH-SB-03	Subsurface Soil	Onsite-determine presence or absence of contamination
WH-SB-04	Subsurface Soil	Onsite-determine presence or absence of contamination
WH-SD-01	Sediment	Offsite - characterize background conditions
WH-SD-02	Sediment	Drainage pathway-determine presence or absence of contamination
WH-SD-03	Sediment	Drainage pathway-determine presence or absence of contamination
WH-SD-04	Sediment	Drainage pathway-determine presence or absence of contamination
WH-SW-01	Surface Water	Offsite - characterize background conditions
WH-SW-02	Surface Water	Drainage pathway-determine presence or absence of contamination
WH-SW-03	Surface Water	Drainage pathway-determine presence or absence of contamination
WH-SW-04	Surface Water	Drainage pathway-determine presence or absence of contamination



SAMPLE LOCATION MAP
WESTINGHOUSE ELECTRIC CORPORATION
ATHENS, GEORGIA



3.5 Analytical and Container Requirements

Sample containers used will be in accordance with the requirements specified in the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986. The following is a description of the analysis and types of containers required.

Analyses	Container	Preservatives**
Ext. Organics, Water	1 gal., amber glass*	None
Volatile Organics, Water	40 ml., glass vial*	4 drops conc. HCL to pH <2
Metals, Water	1 liter, plastic	50% HNO ₃ to pH < 2
Cyanide, Water	1 liter, plastic	NaOH to pH > 12
Ext. Organics, Soil/Sediment	8 oz., glass*	None
Volatile Organics Soil/Sediment	4 oz., glass*	None
Inorganics, Soil/Sediment	8 oz., glass*	None

- Sample container lids are lined with teflon.
- ** All samples will be iced to 4°C upon collection.

3.6 Methodology

All sample collection, sample preservation, and chain-of-custody procedures used during this investigation will be in accordance with the standard operating procedures as specified in Section 3 and 4 of the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

All laboratory analyses and laboratory quality assurance procedures used during this investigation will be in accordance with standard procedures and protocols as specified in the <u>Analytical Support Branch Operations and Quality Assurance Manual</u>; United States Environmental Protection Agency, Region IV, Environmental Services Division; revised June 1, 1985 or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the contract analytical laboratory program.

REFERENCES

- 1. EPA Notification of Hazardous Waste site (EPA Form 8900-1) for Westinghouse Electric Corporation, Athens, Georgia. Filed by E. J. Fogel, Plant Manager, December 13, 1988.
- 2. U. S. Geological Survey, 7.5 minute series Topographic Quadrangle Map of Georgia: Athens West 1964 (photorevised 1984).
- Frank James, Environmental Control Officer for Westinghouse Electric Corporation, telephone conversations with Rebecca Hoffmann, NUS Corporation, April 10, 1989.
 Subject: location of landfill.
- 4. J. S. Clarke, et al, Groundwater data for Georgia 1986. U. S. Geological Survey OFR-87-376.
- 5. National Climatic Center, Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1951-80 Georgia. National Oceanic and Atmospheric Administration, Environmental Data and Information Service, 1982.
- 6. U. S. Department of Commerce, Climatic Atlas of the United States, (Washington, D.C.: GPO, June 1968). Reprint: 1988, National Oceanic and Atmospheric Administration.
- 7. Dean B. Radtke et al, Occurrence and Availability of Groundwater in the Athens Region, Northeastern Georgia. U. S. Geological Survey Water Resources Investigations Report 86-4075.
- 8. U. S. Geological Survey, National Water Summary 1984. U. S. Geological Survey Water Supply Paper 2275.

HAZARD RANKING SYSTEM SCORING SUMMARY

FOR

WESTINGHOUSE ELECTRIC CORPORATION/ATHENS

EPA SITE NUMBER @ADOOSS95144

ATHENS

CLARKE COUNTY, GA

EPA REGION: 4

SCORE STATUS: IN PREPARATION

SCORED BY R.HOFFMANN OF NUS CORPORATION ON 05/22/90

DATE OF THIS REPORT: 05/22/90
DATE OF LAST MODIFICATION: 05/22/90

GROUND WATER ROUTE SCORE: 19.05 SURFACE WATER ROUTE SCORE: 38.67 AIR ROUTE SCORE : 0.00

MIGRATION SCORE : 24.92

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV COLLEGE STATION RD. ATHENS, GA. 30613

SISB/SAS

*****MEMORANDUM*****

DATE: 05/19/89

SUBJECT: Results of Cyanide Analysis;

89-400 WESTINGHOUSE ELECT.

ATHENS GA

FROM: William H. McDaniel

Chief, Inorganic Chemistry Section

TO: PHIL BLACKWELL

Attached are the results of analysis of samples collected as part of the subject project.

If you have any questions please contact me.

ATTACHMENT

05/18/89

> RESULTS UNITS PARAMETER 0.25U MG/KG CYANIDE

05/18/89

* *

* *

* * * *

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-02 SURFACE SOIL #02 PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA

COLLECTION START: 05/04/89 1020 STOP: 00/00/00

RESULTS UNITS PARAMETER 0.25 MG/KG CYANIDE

FOOTNOTES

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

05/18/89

SPECIFIED ANALYSIS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1035 STOP * * * * * * COLLECTION START: 05/04/89 1035 STOP: 00/00/00 * * * * * * * *

> RESULTS UNITS PARAMETER 0.300 MG/KG CYANIDE

05/18/89

SPECIFIED ANALYSIS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-04 SURFACE SOIL #04 ST: GA * * CITY: ATHENS * * COLLECTION START: 05/04/89 1120 STOP: 00/00/00 * * * * * *

> RESULTS UNITS PARAMETER 1.2 MG/KG CYANIDE

05/18/89

**

* *

* * **

SPECIFIED ANALYSIS DATA REPORT

* *

* *

PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE; SOIL SOURCE: WESTINGHOUSE ELECT.
STATION ID: SB-03 SUBSURFACE SOIL #03

PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS

ST:_GA

COLLECTION START: 05/04/89 1225 STOP: 00/00/00

RESULTS UNITS PARAMETER 0.33 MG/KG CYANIDE

FOOTNOTES

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

05/18/89

SPECIFIED ANALYSIS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL PROGELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1530 STOF * * * * ** COLLECTION START: 05/03/89 1530 STOP: 00/00/00 * * * * * *

> RESULTS UNITS PARAMETER 0.250 MG/KG CYANIDE

FOOTNOTES

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

05/18/89

SPECIFIED ANALYSIS DATA REPORT PROG ELEM: NSF COLLECTED BY: R YOUNG PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. ST: GA CITY: ATHENS ** ** STATION ID: SB-01 BACKGROUND SUBSURFACE SOIL COLLECTION START: 05/03/89 1550 STOP: 00/00/00 * * **

RESULTS UNITS PARAMETER 0.260 MG/KG CYANIDE

05/18/89

SPECIFIED ANALYSIS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG ** CITY: ATHENS SOURCE: WESTINGHOUSE ELECT. ST: GA * * * * STATION ID: SD-01 BACKGROUND SEDIMENT SOIL COLLECTION START: 05/03/89 1630 STOP: 00/00/00 ** * * ** ***** *

> RESULTS UNITS PARAMETER 0.25U MG/KG CYANIDE

05/18/89

PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1815 STOP * * * * COLLECTION START: 05/03/89 1815 STOP: 00/00/00 ** ** **

> RESULTS UNITS PARAMETER 0.36U MG/KG CYANIDE

FOOTNOTES

SPECIFIED ANALYSIS DATA REPORT

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

TABLE 2

SUMMARY OF INORGANIC ANALYTICAL RESULTS SURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Background	Onsite		
PARAMETERS (mg/kg)	WH-SS-01	WH-SS-02	WH-SS-03	WH-55-04
ALUMINUM	30,000	19,000	28.000	18,000
ANTIMONY				100
BARIUM	160	92	130	9000
CALCIUM	-	2200	-	1800
CHROMIUM	14	28	2400	8700
COBALT	15	5.9	-	55
COPPER	7.5	51	23,000	9900
IRON	26,000	14,000	29,000	29,000
LEAD	25	140	10,000	9000
MAGNESIUM	8300	1900	3500	1000
MANGANESE	800	320	500	210
MERCURY	-	-	0.05	0.10
NICKEL	-	6	-	58
POTASSIUM	7800	1800	-	
VANADIUM	61	43	70	46
ZINC	53	100	3000	10,000
CYANIDE	-	0.25		1.2
TITANIUM	1800	710	1100	170
YTTRIUM	14	13	1	1 -
STRONTIUM		8.2	1	120

Material analyzed for but not detected above minimum quantitation limit

SUMMARY OF INORGANIC ANALYTICAL RESULTS
SUBSURFACE SOIL SAMPLES
WESTINGHOUSE ELECTRIC CORPORATION

ATHENS, CLARKE COUNTY, GEORGIA

	Background	Onsite	Downgradient	
PARAMETERS (mg/kg)	WH-SB-01	WH-SB-02	WH-SB-03	
ALUMINUM	27,000	55,000	50,000	
BARIUM	26	90	60	
CALCIUM	-	580	290	
CHROMIUM	29	34	56	
COBALT			15	
COPPER	34	22	13	
IRON	45,000	53,000	34,000	
LEAD	29	42	21	
MAGNESIUM	1100	2100	1200	
MANGANESE	250	310	1300	
MERCURY	-		0.1	
NICKEL	14	-	11	
POTASSIUM	1100	2500	1200	
VANADIUM	120	150	81	
ZINC	26	31	40	
CYANIDE	-	-	0.33	
FITANIUM	940	1900	1200	
YTTRIUM	9.7	-	1	

Material analyzed for but not detected above minimum quantitation limit

TABLE 4

SUMMARY OF INORGANIC ANALYTICAL RESULTS
SEDIMENT SAMPLES
WESTINGHOUSE ELECTRIC CORPORATION
ATHENS, CLARKE COUNTY, GEORGIA

	Background	Downgradient WH-SD-02	
PARAMETERS (mg/kg)	WH-SD-01		
ALUMINUM	4400	46,000	
BARIUM	21	180	
CALCIUM	150	1200	
CHROMIUM	15	47	
COBALT	-	18	
COPPER	3.9	30	
IRON	16,000	50,000	
LEAD	6.3	45	
MAGNESIUM	710	1900	
MANGANESE	150	4500	
POTASSIUM	820	1400	
VANADIUM	42	120	
ZINC	12	57	
TITANIUM	410	1000	
YTTRIUM	7.1	25	
STRONTIUM		12	

Material analyzed for but not detected above minimum quantitation limit

Sample WH-SS-03 contained 130 mg/kg of fatty acids or fatty acid derivatives, tentatively identified with estimated concentrations ranging from 40 to 2000 mg/kg. Fatty acids are components of drawing and rolling compounds (greases). This sample also contained an estimated 80 ug/kg xylene (2 x MQL) and a total estimated concentration of 75 mg/kg of seven tentatively identified alkyl benzenes, which are components of kerosenes and other solvents. This sample also contained a significant concentration of PCBs, 1100 ug/kg Aroclor 1242 (18 x MQL) and an estimated 350 ug/kg tentatively identified Aroclor 1260 (5.6 x MQL) and smaller concentrations of Aldrin, Dieldrin, and 4,4'-DDD.

Sample WH-SS-04 contained a total of over 22,000 mg/kg (2.2%) of alkyl substituted benzenes, including 1100 mg/kg ethyl benzene (28,200 x MQL) and 7100 mg/kg xylenes (182,000 x MQL). These are solvents used by Westinghouse in the manufacturing process and listed as components of the waste streams. The other substituted benzenes, tentatively identified with estimated concentrations ranging from 10 to 6000 mg/kg, are components of kerosene and fuel oils. This sample contained a total concentration of 2400 mg/kg PNAs including 620 mg/kg naphthalene (365 x MQL) and 240 mg/kg 2-methylnaphthalene (141 x MQL), 6200 mg/kg of fatty acids, 560 mg/kg phenols (antioxidant, surfactant, wood preservative, and insecticide) including 180 mg/kg 4-nitrophenol (54 x MQL) and 180 mg/kg 2, 4-dinitrophenol (54 x MQL), 290 mg/kg nonaromatic hydrocarbons, and 2000 mg/kg unidentified compounds and petroleum product. The contaminants in this sample are components of kerosene, solvents, and lubricants.

Sediment sample WH-SD-02 contained an estimated 6000 ug/kg of hexadecanoic acid (3 x background) and an estimated 700 ug/kg of octadecanoic acid (tentatively identified) and petroleum product.

Results of subsurface soil samples revealed no analytical significant contamination of organic constituents.

Organic analytical results can be found in Tables 5, 6, and 7.

SUMMARY OF ORGANIC ANALYTICAL RESULTS SURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Backgroun	Onsite		
PARAMETERS (ug/kg)	WH-SS-01	WH-SS-02	WH-SS-03	
PURGEABLE COMPOUNDS				
ETHYL BENZENE	-	-		1 100,000
(M- AND/OR P-)XYLENE				17,000,000
O-XYLENE		1	81,	5.400,000
TRIMETHYLBENZENE	-	-	200JN	5,000,000JN/
PETROLEUM PRODUCT	-		N	
EXTRACTABLE COMPOUNDS		1		1
NAPHTHALENE	-	-	-	620,000
2-METHYLNAPHTHALENE				240,000
ACENAPHTHYLENE	<u> </u>	2800)		-
4-NITROPHENOL			-	180,000
2,4-DINITROPHENOL	-	Ţ		180,000
PHENANTHRENE	-	16,000	-	13,000J
ANTHRACENE		5200J	T	-
LUORANTHENE	-	78,000	-	-
PYRENE	<u>-</u>	67,000	-	-
BENZO(A)ANTHRACENE		28,000	-	
CHRYSENE		25,000	-	-
BENZO(B AND/OR	-	51,000	-	-
BENZO-A-PYRENE	-	24.000	-	-
NDENO (1,2,3-CD) PYRENE		10,000J	-	-
DIBENZO(A,H)ANTHRACENE		3700J		
BENZO(GHI)PERYLENE	·	95001	-	
HEXADECANOIC ACID	1000N		2E6JN	4E6JN
OCTADECANOIC ACID	-		700,000JN	1E6JN
DIMETHYLBUTENYLIDENE)BISBEN		2000JN		I
METHYLPHENANTHRENE	-	2000JN		
CYCLOPENTAPHENANTHRENE		0000N		
PHENYLNAPHTHALENE		30001N		-

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Backgroun	· ·	Onsite		
PARAMETERS (ug/kg)	WH-SS-01	WH-SS-02	WH-SS-03	WH-SS-04	
BIS(BUTADIYNEDIYL)BENZENE	-	2000 JN			
BENZONAPHTHOFURAN		90001N/3			
PHENANTHRENECARBONITRILE		30001N	-	-	
METHYLFLUORANTHENE	-	20,000JN/4	1 -		
BENZOFLUORENE	-	N10 00 8		1	
BENZONAPHTHOTHIOPHENE	-	7000JN	-		
BENZOFLUORANTHENE (NOT B OR		40,0001N/2	-		
BENZOPHENANTHRENONE		2000JN .			
TETRADECANOIC ACID			N1000,002	N1000,000	
METHYLPROPYLBENZENE		-	50001N	И1000,000	
DIETHYLMETHYLBENZENE		-	90001N/2	NL000,0001	
(DIMETHYLPROPYL)BENZENE	-	-	60001N	1E6JN/6	
DIMETHYL(METHYLETHYL)BENZENE		-	10,000JN/2	1E6JN/6	
ETHYLTRIMETHYLBENZENE	-		4000JN	NL000,001	
HEXANOIC ACID		-	60001N		
COPAENE			30001N	-	
HEPTADECANOL	-	-	40,000JN/2	-	
PENTADECANOIC ACID	-	-	40,000JN	-	
retradecanal		-	40.000JN		
HEPTADECANOIC ACID	-		100,000JN		
THYLDIMETHYLBENZENE	-	-	40,000JN/5	6E6JN/7	
PROPYCYCLOHEXANE	-	-	-	NL000,01	
PROPYLBENZENE	-	-	-	N1000,0E	
ETHYLMETHYLBENZENE	-			200,000JN/3	
RIMETHYLBENZENE				5/NL000,006	
PROPENYLCYCLOHEXANE				200,000JN	
DIHYDROINDENE	-	-	-	100,000JN	
METHYLPROPYL)BENZENE	-	-		N1000,02	
BUTYLBENZENE	-			ML000,000	

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Backgroun	Onsite		
PARAMETERS (ug/kg)	WH-SS-01	WH-SS-02	WH-5S-03	WH-55-04
METHYLDECAHYDRONAPHTHALENE	-	-	-	20,000JN
PENTYCYCLOHEXANE	· ·	T .		30,000JN
METHYLDIHYDROINDENE	-	-	Ţ	700,000JN
DIETHYLBENZENE	-	-	-	1E6JN
TETRADYDRONAPHTHALENE		1		200,000JN
((METHYLBENZYL)SULFONYL)PHEN			1	NL000,001
DIMETHYDIHYDROINDENE		-		2/ML000,002
DIMETHYL(METHYLPROPYL)BENZEN				90,000 jN/2
1-METHYLNAPHTHALENE			-	N1000,09
DIMETHYLNAPHTHALENE		1		20,000JN
HEXAMETHYLOCTAHYDROINDENE	-	<u> </u>		Nt000,001
BIS(DIMETHLETHYL)METHYLPHENO		-	1 -	Nt000,001
TRIMETHYLNAPHTHALENE	-		-	20,000JN/2
METHYL(METHYLETHYL)NAPHTHALE	-	-	-	30,000JN
DIMETHYLPHENANTHRENE	-			30,000N
HEXADECENOIC ACID	-	-	-	1E6JN
ETHYL(METHYLETHYL)BENZENE		-	1	2E61N
METHYLPROPYLCYCLOHEXANE			-	50,000JN/2
PETROLEUM PRODUCT	-	-	N	N
UNIDENTIFIED COMPOUNDS/NO.	-	200,000J/2	2E6JN/11	2E6J/10
PESTICIDE\PCB COMPOUNDS		1		1
ALDRIN	-	-	48	23
DIELDRIN			431	66
1,4'-DDD (P,P'-DDD)	-		74	-
PCB-1242 (AROCLOR 1242)	-	1 -	1100	1
PCB-1260 (AROCLOR 1260)		1	350/N	1

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SUBSURFACE SOIL SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Background	Onsite	Downgradient
PARAMETERS (ug/kg)	WH-SB-01	WH-SB-02	WH-58-03
EXTRACTABLE COMPOUNDS			
BENZO(B AND/OR K)FLUORANTHENE		170J	-
HEXADECANOIC ACID	5000JN		5000JN
OCTADECANOIC ACID	400JN		700JN
TETRADECANOIC ACID	-	<u> </u>	200JN
PESTICIDE\PCB COMPOUNDS			
4,4'-DDT (P,P'-DDT)		8.1J	

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

SUMMARY OF ORGANIC ANALYTICAL RESULTS SEDIMENT SAMPLES WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

	Background	Downgradient
PARAMETERS (ug/kg)	WH-SD-01	WH-SD-02
EXTRACTABLE COMPOUNDS		
HEXADECANOIC ACID	2000JN	60001N
OCTADECANOIC ACID	-	700JN
PETROLEUM PRODUCT		N

- Material analyzed for but not detected above minimum quantitation limit
- J Estimated value
- N Presumptive evidence of presence of material

5.0 SUMMARY

The operations at the WEC facility included manufacturing and repairing overhead distribution transformers, a process that has been conducted since 1958. The results of this investigation revealed the presence of organic and inorganic contaminants, consistent with the WEC operations, in surface soil samples in excess of background conditions. Access to the site could be obtained by nearby residents, and the uncontained contaminated surface soils could be dispersed by the wind. Potentially affected targets include employees at the WEC facility and adjacent industrial properties and the 486 residents residing within a 1-mile radius of the site. Also, the population within the 4-mile site radius is estimated at 49,884.

The results of sediment sampling at the confluence of the swampy region and the North Oconee River revealed the presence of ten inorganic contaminants with significantly higher concentrations than background conditions. Although there were no visibly discernable pathways for surface water migration from the landfill, contaminant migration from the site may be possible during heavy rainfall. One of the municipal surface water intakes for the city of Athens is located 2.65 stream miles from the WEC landfill. The municipal system serves approximately 98,800 persons. Other possible explanations for the presence of the inorganic contaminants could be infiltration of surface water runoff to groundwater or the influence of industrial properties located north and adjacent to the swampy region.

The groundwater pathway is not a concern due to the lack of potentially affected targets. However, because the potentially affected population is large for the surface water pathway, and there are potentially affected targets for the surface water, air and onsite pathways, FIT 4 recommends a Listing Site Inspection, Phase I, be conducted at the WEC landfill.

REFERENCES

- 1. Potential Hazardous Waste Site Preliminary Assessment (EPA Form 2070-12) and attachments for Westinghouse Electric Corporation. Filed by Gilda Knowles, Georgia Department of Natural Resources, September 20, 1985.
- 2. EPA Notification of Hazardous Waste Site (EPA Form 8900-1) for Westinghouse Electric Corporation, Athens, Clarke County, Georgia. Filed by E.J. Fogel, Plant Manager, December 13, 1988.
- 3. Samuel R. Pitts, Vice-President, Environmental Affairs, Westinghouse Electric Corporation, Pittsburg, Pennsylvania, letter to USEPA, December 20, 1988. Subject: EPA Notification of Hazardous Waste Site.
- 4. Will Slater, HWDMS, telephone conversation with R. Hoffmann, NUS Corporation, April 5, 1990. Subject: Interim status of WEC facility.
- NUS Corporation Field Logbook No. F4-1378 for Westinghouse Electric Corporation, TDD No. F4-8903-40. Documentation of Screening Site Inspection, May 3-4, 1989.
- 6. Kenneth A. Lucas, "Preliminary Reassessment, Westinghouse Electric Corporation, Athens, Clarke County, Georgia," prepared for the Environmental Protection Agency, March 8, 1989.
- 7. Charles K. Gorham, Quality Assurance Supervisor, Westinghouse Electric Corporation, letter to George M. Saad, Environmental Engineer, Solid Waste Management Section, Georgia Environmental Protection Division, June 29, 1981. Subject: Liquid wastes generated at Westinghouse.
- 8. NUS Corporation Field Logbook No. F4-1349 for Westinghouse Electric Corporation, TDD No. F4-8903-40. Documentation of onsite reconnaissance, April 17, 1989.
- 9. Anne Spence, Athens, Georgia Chamber of Commerce, telephone conversation with R. Hoffmann, NUS Corporation, November 6, 1989. Subject: Population of Athens, Georgia.

- 10. U.S. Environmental Protection Agency, <u>Graphical Exposure Modeling Systems (GEMS) Data</u>

 <u>Base</u>, compiled from U.S. Bureau of the Census data (1980).
- 11. U.S. Department of Commerce, <u>Climatic Atlas of the United States</u> (Washington, D.C.: GPO, June 1968) Reprint: 1983, National Oceanic and Atmospheric Administration.
- 12. U.S. Department of Commerce, <u>Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1951-80 in Georgia</u> (National Climatic Center, Ashville, N.C. 1982), pp. 2, 5.
- 13. Dean B. Radtke, Charles W. Cressler, Howard A. Pearlman, Harry E. Blanebard, Jr., Keith W. McFadden, and Rebekah Brooks, <u>Occurrence and Availability of Ground Water in the Athens Region, Northeastern Georgia</u>, Water-Resources Investigations Report 86-4075 (U.S. Army Corps of Engineers, 1986), pp. 8-11, plate 1.
- 14. U.S. Department of Commerce, <u>Rainfall Frequency Atlas of the United States</u>, Technical Paper Number 40 (Washington, D.C.: GPO, 1961).
- 15. Rebecca Hoffmann, NUS Corporation; memo to file for Westinghouse Electric Corporation, August 12, 1989. Subject: Conversation with Roy Burns, Water Superintendent for Athens Water Department, concerning extent of water lines.
- 16. J.S. Clarke, S.A. Longsworth, C.N. Joiner, M.F. Peck, K.W. McFadden, and B.J. Milby, <u>Groundwater Data for Georgia</u>, Open File Report 87-367 (Georgia Department of Natural Resources Environmental Protection Division and Georgia Geologic Survey), pp. 4-5.
- 17. U.S. Geological Survey, <u>National Water Summary</u>: <u>Hydrologic Events, Selected Water Quality</u>
 Trends, and Ground-Water Resources, Water Supply Paper 2275 (1984), p. 162.
- 18. NUS Corporation Field Logbook No. F4-1377 for Westinghouse Electric Corporation, TDD No. F4-8904-04. Documentation of geophysical survey, May 3, 1989.

APPENDIX A

APPENDIX B

06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT.
STATION ID: SB-01 BACKGROUND SUBSURFACE SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG * * CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1550 STOP: 00/00/00 CITY: ATHENS ** * * * * ** MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 5.00 SILVER 2500 CALCTUM 15U ARSENIC 1100 MAGNESIUM NA BORON 45000 TRON 26 2.50 2.50 BARIUM 500U SCDIUM BERYLLIUM 1100 POTASSIUM CADMIUM 22 PERCENT MOISTURF 5.ŎŨ COBALT CHROMIUM 29 34 COPPER 5. ÕÜ MOLYBDENUM NICKEL 14 29 LEAD 15U ANTIMONY 200 SELENIUM 12U TIN 5.00 STRONTIUM TELLURIUM 25U 940 TITANIUM 500 THALLIUM 120 VANADIUM YTIRIUM 9 7 26 NA ZINC

REMARKS

0.050

ZIRCONIUM MERCURY

27000 ALUMINUM 250 MANGANESE

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM

EPA-REGION IV ESD. ATHENS, GA. 06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS ST: GA 4.8 COLLECTION START: 05/03/89 1630 STOP: 00/00/00 STATION ID: SD-01 BACKGROUND SEDIMENT SOIL * * ** == MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 2 OIL SILVER 150 CALCIUM 6.0U ARSENIC 710 MAGNESIUM NA BORON 16000 TRON 21 BARIUM 2000 SODIUM 1.00 BERYLLIUM 820 POTASSIUM 1. OU CADMIUM 20 PERCENT MOISTURE 2. OU COBALT 15 CHROWIUM 3.9 COPPER 2.00 MOLYBDENUM

REMARKS

4.00 NICKEL
6.3 LEAD
6.00 ANTIMONY
8.00 SELENIUM
5.00 TIN
2.00 STRONTIUM

TELLURIUM TITANIUM

THALLIUM VANADIUM

VITRIUM

12 ZINC NA ZIRCONIUM 0.05U MERCURY 4400 ALUMINUM 150 MANGANESE

100

410 200

42 7.1

REMARKS

06/09/89

**

METALS DATA REPORT

*** PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL

*** SOURCE: WESTINGHOUSE ELECT.

*** STATION ID: SS-01 BACKGROUND SURFACE SOIL

*** COLLECTION START. 05/03/89 1530 STOP: 00/00/00

MG/KG ANALYTICAL RESULTS
3 OU SILVER
9. OU ARSENIC
NA BORON
160 BARIUM
1.5U BERYLLIUM

MG/KG ANALYTICAL RESULTS
150U CALCIUM
8300 MAGNESIUM
26000 TRON
3GOU SQDIUM
7800 POTASSIUM

14 CHROMIUM 7.5 COPPER

3.00 MOLYBDENUM 6.00 NICKEL 25 LEAD 9.00 ANTIMONY 120 SELENTUM

1.50 CADMIUM

15 COBALT

7.5U TIN
3.0U STRONTIUM
15U TELLURIUM
1800 TITANIUM
30U THALLIUM
61 VANADIUM

14 YIRIUM 53 ZINC NA ZIRCONIUM 0.05U MERCURY

30000 ALUMINUM 800 MANGANESE

REMARKS

REMARKS

19 PERCENT MOISTURE

```
METALS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE TYPE: SOIL
                                                   PROG ELEM: NSF COLLECTED BY: R YOUNG
   SOURCE: WESTINGHOUSE ELECT.
                                                   CITY: ATHENS
                                                                      ST: GA
                                                                                               ..
                                                   COLLECTION START: 05/04/89 1005 STOP: 00/00/00
   STATION ID: SB-02 SUBSURFACE SOIL #2
                                                                                               **
. .
                                                                                               * *
MG/KG
                 ANALYTICAL RESULTS
                                                  MG/KG
                                                                ANALYTICAL RESULTS
   7 OU SILVER
                                                    580 CALCTUM
   21U ARSENIC
                                                   2100 MAGNESIUM
    NA BORON
                                                   53000 TRON
    90 BARIUM
                                                   700U SODIUM
   3.50 BERYLLIUM
                                                   2500 POTASSIUM
   3.50 CADMIUM
                                                     21 PERCENT MOISTURE
   7. OU COBALT
       CHROMIUM
    34
    22
       COPPER
   7. OU MOLYBDENUM
   140 NICKEL
    42 LEAD
   210 ANTIMONY
280 SELENIUM
180 TIN
   7. OU
       STRONTIUM
   350 TELLURIUM
   1900 TITANIUM
   700 THALLIUM
   150 VANADIUM
   7 ŌŪ
       VITRIUM
    31 ZINC
NA ZIRCONIUM
  O. OSU MERCURY
  55000 ALUMINUM
   310 MANGANESE
```

REMARKS

FOOTNOTES

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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METALS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT.
                                                      PROG ELEM: NSF COLLECTED BY: R YOUNG
                                                      CITY: ATHENS
                                                      CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1815 STOP: 00/00/00
                                                                                                    * *
   STATION ID: SD-02 SEDIMENT SOIL #02
                                                                                                    **
                                                                                                    . .
MG/KG
                  ANALYTICAL RESULTS
                                                    MG/KG
                                                                    ANALYTICAL RESULTS
   6 OU SILVER
                                                      1200 CALCIUM
   18U ARSENIC
                                                      1900 MAGNESIUM
    NA BORON
                                                     50000 TRON
   180 BARIUM
                                                      GOOU SODIUM
   3.00 BERYLLIUM
                                                      1400 POTASSIUM
   3.00 CADMIUM
                                                       45 PERCENT MOISTURE
    18 COBALT
       CHROMIUM
    41
    30 COPPER
   6.00 MOLYBDENUM
   120 NICKEL
    45 LEAD
    18U ANTIMONY
   24U SELENIUM
15U TIN
    12 STRONTIUM
300 TELLURIUM
   1000 TITANIUM
    600 THALLTUM
    120 VANADIUM
    25
57
       VIIRIUM
  57 ZINC
NA ZIRCONIUM
O.OSU MERCURY
  46000 ALUMINUM
   4500 MANGANESE
```

REMARKS

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METALS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT.
                                                     PROG ELEM: NSF COLLECTED BY: R YOUNG
                                                     CITY: ATHENS
                                                                        ST: GA
                                                                                                   ..
   STATION ID: SS-02 SURFACE SOIL #02
                                                     COLLECTION START: 05/04/89 1020 STOP: 00/00/00
* *
. .
  MG/KG
                  ANALYTICAL RESULTS
                                                    MG/KG
                                                                   ANALYTICAL RESULTS
   2 OU SILVER
                                                      2200 CALCIUM
   6.00
       ARSENIC
                                                     1900 MAGNESIUM
    NA
       BORON
                                                     14000 JRON
                                                     2000 SODIUM
1800 POTASSIUM
    92
       BARIUM
       BERYLLIUM
   1.00
   1.00
       CADMIUM
                                                       13 PERCENT MOISTURE
    5.9
       COBALT
       CHROMIUM
    28
       COPPER
   2.00 MOLYBDENUM
   6.0 NICKEL
    140 LEAD
   6. OU ANTIMONY
   8.OU SELENTUM
5.OU TIN
       STRONTIUM
    8.2
    10Ü
       TELLURIUM
       TITANIUM
    710
    20U
       THALLIUM
    43 VANADIUM
    13 VITRIUM
    100 ZINC
NA ZIRCONIUM
  O OSU MERCURY
19000 ALUMINUM
    320 MANGANESE
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REMARKS

06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START. 05/04/89 1225 STOP: 00/00/00 * * SOURCE: WESTINGHOUSE ELECT. * * STATION ID: SB-03 SUBSURFACE SOIL #03 * * MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 5.00 SILVER 290 CALCIUM 15U ARSENIC 1200 MAGNESIUM NA BORON 34000 TRON 60 BARIUM SOOU SCDIUM 2.50 BERYLLIUM 1200 POTASSIUM 2.5U CADMIUM 19 PERCENT MOISTURE 15 COBALT 56 CHROMIUM ĨŠ. COPPER 5.00 MOLYBDENUM 11 NICKEL 21 LEAD 150 ANTIMONY 200 SELENIUM 120 TIN 5.00 STRONTIUM 250 TELLURIUM 1200 TITANIUM 500 THALL TUM 81 VANADIUM 5 OU YITRIUM 40 ZINC NA ZIRCONIUM 0.1 MERCURY 50000 ALUMINUM

REMARKS

1300 MANGANESE

REMARKS

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METALS DATA REPORT
PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1035 STOP: 00/00/00
   PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL
..
    SOURCE: WESTINGHOUSE ELECT.
..
                                                                                                         ..
    STATION ID: SS-03 SURFACE SOIL #03
* *
                                                                                                         **
..
                                                                                                         **
MG/KG
2500U CALCTUM
3500 MAGNESIUM
   MG/KG
                   ANALYTICAL RESULTS
                                                                       ANALYTICAL RESULTS
   500 SILVER
1500 ARSENIC
    NA BORON
                                                        29000 TRON
5000U SODIUM
    130
       BARIUM
    250 BERYLLIUM
                                                       10000U POTASSIUM
   250 CADMIUM
500 COBALT
                                                           33 PERCENT MOISTURE
   2400 CHROMIUM
  23000 COPPER
   SOU MOLYBDENUM
  10000 LEAD
   1500 ANTIMONY
   2000 SELENIUM
1200 TIN
    500 STRONTIUM
   250U
       TELLURIUM
   1100 TITANIUM
   5000 THALLTUM
       VANADIUM
    70
    500 YITRIUM
   3000
       ZINC
    NĂ ŽÎRCONIUM
   0.05 MERCURY
  28000 ALUMINUM
       MANGANESE
    500
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REMARKS

06/09/89 METALS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-04 SURFACE SOIL #04 CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1120 STOP: 00/00/00 * * ** MG/KG ANALYTICAL RESULTS MG/KG ANALYTICAL RESULTS 250 SILVER 750 ARSENIC 1800 CALCTUM 1000 MAGNESIUM NA BORON 29000 TRON 2500U SODIUM 9000 BARIUM 120 BERYLLIUM 5000U POTASSIUM 12U CADMIUM 29 PERCENT MOISTURE 55 COBALT 8700 CHROMIUM 9900 COPPER 250 MOLYBDENUM 58 NICKEL 9000 LEAD 100 ANTIMONY 1000 SELENIUM 62U TIN 120 STRONTIUM 1200 TELLURIUM 170 TITANIUM 2500 THALLIUM 46 VANADIUM 25Ŭ YITRIUM ZINC ZIRCONIUM 10000 NA 0.10 MERCURY 18000 ALUMINUM

REMARKS

210 MANGANESE

REMARKS

05/18/89

SPECIFIED ANALYSIS DATA REPORT COLLECTED BY: R YOUNG PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL PROG ELEM: NSF . . SOURCE: WESTINGHOUSE ELECT. CITY: ATHENS * * COLLECTION START: 05/03/89 1530 STOP: 00/00/00 STATION 10: SS-O1 BACKGROUND SURFACE SOIL .. **

> RESULTS UNITS PARAMETER 0.250 MG/KG CYANIDE

FOOTNOTES

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SPECIFIED ANALYSIS DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG 4.4 SOURCE: WESTINGHOUSE ELECT CITY: ATHENS ST: GA * * * * COLLECTION START: 05/04/89 1020 STOP: 00/00/00 ** STATION ID: SS-02 SURFACE SOIL #02 .. * *

RESULTS UNITS PARAMETER 0.25 MG/KG CYANIDE

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SPECIFIED ANALYSIS DATA REPORT

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PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-03 SURFACE SOIL #03 PROG ELEM: NSF COLLECTED BY: R YOUNG

CITY: ATHENS ST: GA CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1035 STOP: 00/00/00

> RESULTS UNITS PARAMETER O. 300 MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

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SPECIFIED ANALYSIS DATA REPORT

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PROG ELEM: NSF COLLECTED BY: R YOUNG PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-04 SURFACE SOIL #04 CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1120 STOP: 00/00/00

RESULTS UNITS PARAMETER 1.2 MG/KG CYANIDE

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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SPECIFIED ANALYSIS DATA REPORT

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PROJECT NO. 89-400 SAMPLE NO. 34905 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. STATION ID: SB-01 BACKGROUND SUBSURFACE SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG

CITY: ATHENS ST: GA COLLECTION START: 05/03/89 1550 STOP: 00/00/00

> RESULTS UNITS PARAMETER 0.26U MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD. ATHENS. GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT

** PROJECT NO. 89-400 SAMPLE NO. 34899 SAMPLE TYPE: SOIL

** SOURCE: WESTINGHOUSE ELECT.

** STATION ID: SB-02 SUBSURFACE SOIL #2

** COILECTION START: 05/04/89 1005 STOP: 00/00/00

**

RESULTS UNITS PARAMETER 0.25U MG/KG CYANIDE

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SPECIFIED ANALYSIS DATA REPORT

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PROJECT NO. 89-400 SAMPLE NO. 34903 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. STATION ID: SB-03 SUBSURFACE SOIL #03 PROG ELEM: NSF COLLECTED BY: R YOUNG

CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1225 STOP: 00/00/00

RESULTS UNITS PARAMETER 0.33 MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

SPECIFIED ANALYSIS DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34906 SAMPLE TYPE: SOIL
SOURCE: WESTINGHOUSE ELECT.
STATION ID: SD-01 BACKGROUND SEDIMENT SOIL

PROG ELEM: NSF COLLECTED BY: R YOUNG
CITY: ATHENS
ST: GA
CULLECTION START: 05/03/89 1630 STOP: 00/00/00

RESULTS UNITS PARAMETER 0.25U MG/KG CYANIDE

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/18/89

SPÉCIFIED ANALYSIS DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34907 SAMPLE TYPE: SOIL
SOURCE: WESTINGHOUSE ELECT.
STATION ID: SD-02 SEDIMENT SOIL #02

PROG ELEM: NSF COLLECTED BY: R YOUNG
CITY: ATHENS
ST: GA
COLLECTION START: 05/03/89 1815 STOP: 00/00/00

RESULTS UNITS PARAMETER 0.3GU MG/KG CYANIDE

EPA-REGION I	IV ESD, ATHENS, CA.	06/13/89
PURGEARLE ORGANICS DATA REPORT		
** PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL ** SOURCE: WESTINGHOUSE ELECT. ** STATION ID: SS-01 BACKGROUND SURFACE SOIL		
UG/KG ANALYTICAL RESULTS	UG/KG ANALYTICAL RESULTS	* * * * * * * * * * * *
CHLOROMETHANE 39U VINYL CHLORIDE 39U BROMGMETHANE 39U CILLOROETHANE 39U 1.1-DICILLOROETHANE 39U 1.1-DICILLOROETHENE(1,1-DICHLORGE(HYLENE) 39OU ACETONE 39OU CARBON DISULFIDE 39U METHYLENE CHLORIDE 39U TRANS-1,2-DICHLOROETHENE 39U TRANS-1,2-DICHLOROETHENE 39U VINYL ACETATE 39U VINYL ACETATE 39U CIS-1,2-DICHLOROETHENE 39U 2,2-DICHLOROPROPANE 39U 2,2-DICHLOROMETHANE 39U BROMOCHLOROMETHANE 39U CHLOROFORM 39U 1,1,1-TRICHLORGETHANE 39U 1,1 DICHLOROPROPENE 39U 1,2-DICHLOROETHANE 39U 1,2-DICHLOROETHANE 39U TRICHLOROETHANE 39U TRICHLOROETHANE 39U TRICHLOROETHANE 39U TRICHLOROETHANE 39U BENZENE 39U TRICHLOROFTHENE(KICHLOROETHYLENE) 39U DIBROMOMETHANE	39U CIS 1,3-DICHLOROPROPENE 39U MFTHYL ISCHUTYL KETONE 39U TOLUCNE 39U TRANS-1,3-DICHLOROPROPENE 39U 1,1-2-IRICHLOROFTHANE 39U TETRACHLOROETHENE(TETRACHLOROETHYLE 39U 1,3-DICHLOROPROPANE 39U METHYL BUTYL KETONE 39U CHLOROBENZENE 39U CHLOROBENZENE 39U (M-AND/OR P-)XYLENE 39U (M-AND/OR P-)XYLENE 39U STYRENE 39U STYRENE 39U BROMOFORM 39U BROMOFORM 39U BROMOBENZENE 39U 1,2,2-TETRACHLOROETHANE 39U 1,2,2-TETRACHLOROETHANE 39U 1,2,3-TRICHLOROPROPANE 39U 0-CHLOROTOLUENE 39U 1,3-DICHLOROBENZENE 39U 1,3-DICHLOROBENZENE 39U 1,4-DICHLOROBENZENE 39U 1,2-DICHLOROBENZENE	·Nt)

REMARKS

REMARKS

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* * * REMARKS * * *

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM VALUE *N-PRESUMPTIVE EVIDENCE KNOWN TO BE GREATER THAN VALUE QUANTITATION LIMIT. OF PRESENCE GIVEN MATERIAL

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM

05/30/89	COLLECTED BY: R YOUNG *** * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *	ROPENE STONE	JPROPENE JANE TETRACHLOROETHYLENE)	J. S.	ROETHANE	EN:	ROE THANE OPANE	1.3-DICHLOROBENZENE 1.4-DICHLOROBENZENE 1.2-DICHLOROBENZENE PÉRCENT MOISTURE	
SD, ATHENS, GA.	PROG ELEM: NSF COLLECTED E CITY: ATHENS COLLECTION START: 05/04/89		160U CIS-1,3-DICHLOROPR 1600U MFTHYL ISUBUTYL KE 160H TOLIFNE		160U 1,3-DICHLOROPROPAN 160U METHYL BUTYL KETON 160U DIBROMOCHLOROMETHA				1600 1.2-DICHLOROBENZEN 1600 1.2-DICHLOROBENZEN 1600 1.2-DICHLOROBENZEN 33.0 PÉRCENT MOISTURE	
SAMITE AND ANALTSIS MANAUEMENT EPA-REGION IV ESD, ATHENS,	SAMPLE NO. 34901 SAMPLE TYPE: SOIL LECT. ACE SOIL #03	* * * * * * * * * * * * * * * * * * *		THANE IE(1,1~DICHLOROETHYLENE)	ACE TONE CARBON DISULFIDE METHYLENE CHLORIDE	JE HENE	THENE NE NE	 HANE NE 1.J DE	RICHLOROETHYLENE) NE AANE	TAIN!
PURGEABLE ORGANICS DATA REPORT	PROJECT NO. 89-400 SAMPLE NO. 34 SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-03 SURFACE SOIL #03	*** * * * * * * * * * * * * * * * * *	160U CHLOROMETHANE 160U VINYL CHLORIDE 160U BROMOMETHANE			1600 1.1-DICHLOROETHANE		160U 1,1,1—TRICHLOROETHANE 160U 1,1—DICHLOROPROPENE 160U CARBUN FETRACHLORIDE 160U 1-2—DICHLOROETHANE	4	

REMARKS

REMARKS

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

05/30/89

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MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT

PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-03 SURFACE SOIL #03 PROG ELEM: NSF COLLECTED BY: R YOUNG

CITY: ATHENS ST: GA COLLECTION START: 05/04/89 1035 STOP: 00/00/00

ANALYTICAL RESULTS UG/KG

200JN TRIME IHYLBENZENE N PETROLEUM PRODUCT

FOOTNOTES

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^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE, COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

PURGEABLE (ORGANICS DATA REPORT	LW-KEGION IA		- •		06/13/89
** PROJEC	CT NO. 89-400 SAMPLE NO. 34902 SAMPLE T E: WESTINGHOUSE ELECT. ON ID: SS-04 SURFACE SOTI #04		COLLEC	JIION START, 05/04/89) 1120 STOP: 00/00/00) **
UG/KG	* * * * * * * * * * * * * * * * * * *		UG/KG		CAL RESULTS	* * * * * ±±±
9.3F6U 930000U 930000U 930000U 9.3F6U 930000U 9.3F6U 930000U 930000U 930000U 930000U 930000U 930000U 930000U 930000U 930000U 930000U 930000U 930000U	CHLOROMETHANE VINYL CHLORIDE BROMOMETHANE CITLOROETHANE CITLOROETHANE TRICHLOROFLUOROMETHANE 1,1-DICITLOROETHENE(1,1-DICHLOROETHYLENE) ACE TONE CARBON DISULFIDE METHYLENE CHLORIDE TRANS-1,2-DICHLOROETHENE 1,1-DICHLOROETHANE VINYL ACETATE CIS-1,2-DICHLOROETHENE 2,2-DICHLOROPROPANE METHYL ETHYL KETONE BROMOCHLOROMETHANE CHLOROFORM 1,1,1-TRICHLOROETHANE 1,1 DICHLOROPROPENE CARBON TETRACHLORIDE 1,2-DICHLOROETHANE T,2-DICHLOROETHANE T,2-DICHLOROETHANE T,2-DICHLOROPROPANE BENZENE TRICHLOROFTHENE(FRICHLOROETHYLENE) 1,2-DICHLOROPROPANE DIBROMOMETHANE BROMODICHLOROMETHANE DIBROMOMETHANE BROMODICHLOROMETHANE		930000U 9.3E6U 930000U 930000U 930000U 930000U 930000U 9.3E6U 930000U 1.9E6U 1.1E6 1.7E7 5.4E6 1.9E6U 930000U 1.9E6U 936U 936U 936U 936U 936U 936U 936U 93	CIS 1.3-DICHLOROPROP MFTHYL ISOBU!YL KETO TOLUENE TRANS-1.3 DICHLOROPR 1.1.2-IRICHLOROFTHAN TETRACHLOROETHENE(TE 1.3-DICHLOROPROPANE METHYL BUTYL KETONE DIBROMOCHLOROMETHANE CHLOROBENZENE 1.1.1,2-TETRACHLOROE ETHYL BENZENE (M- AND/OR P-)XYLENE O-XYLENE STYRENE BROMOFORM BROMOFORM BROMOFORM BROMOFORM 1.1,2,2-TETRACHLOROE 1.2,3-TRICHLOROPROPA O-CHLOROTOLUENE 1.3-DICHLOROBENZENE 1.3-DICHLOROBENZENE 1.4-DICHLOROBENZENE 1.2-DICHLOROBENZENE 1.2-DICHLOROBENZENE 1.2-DICHLOROBENZENE PERCENT MOISTURE	INE IOPENE IE ITRACHLORÜETHYLENE) ITHANE ITHANE	

REMARKS

REMARKS

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/13/89

MISCELLANEOUS PURGEABLE ORGANICS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34902 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT.
STATION 1D: SS-04 SURFACE SOIL #04 PROG FLEM: NSF COLLECTED BY: R YOUNG ** CITY: ATHENS ST: GA CULLECTION START: 05/04/89 1120 STOP: 00/00/00 * * * *

ANALYTICAL RESULTS UG/KG

TRIME HYLBENZENE (3 ISOMERS)

FOOTNOTES *A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN

*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT, RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL CITY. ATHENS SOURCE: WESTINGHOUSE ELECT. SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-01 BACKGROUN SURFACE SOIL UG/KG ANALYTICAL RESULTS ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS ANALYTICAL R	EXTRACTABLE ORGANICS DATA REPORT	10,00,00
UG/KG	PROJECT NO. 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. STATION ID: SS-01 BACKGROUND SURFACE SOIL	PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS SI: GA COLLECTION START. 05/03/89 1530 STOP: 00/00/00
1700U BIS(2 CILLOROTSPROPY) FTHER	UG/KG ANALYTICAL RESULTS	UG/KG ANALYTICAL RESULTS
1700U PHENANTHRENE 3300U PENTACHLOROPHENOL 1700U ANTHRACENE 19 PERCENT MOISTURE 1700U DI-N-BUTYLPHTHALATE	1700U BIS(2 CHLOROETHYL) FTHER 1700U N-NITROSODJ-N-PROPYL AMINF 1700U N-NITROSODJ-N-PROPYL AMINF 1700U HEXACHLOROETHANE 1700U SOPHORONE 1700U BIS(2-CHLOROETHOXY) METHANE 1700U 1,2,4-TRICHLOROBENZENE 1700U 1,2,4-TRICHLOROBENZENE 1700U APHTHALENE 1700U 4-CHLOROBUTADIENE 1700U 4-CHLOROBUTADIENE 1700U 2-METHYLNAPHTHALENE 1700U 1700U 2-METHYLNAPHTHALENE 1700U 2-NITROANILINE 1700U 2-NITROANILINE 1700U ACENAPHTHYLENE 1700U 3-NITROANILINE 1700U 3-NITROANILINE 1700U 0 DIBENZOFURAN 1700U 0 JETHYL PHTHALATE 1700U 1700U 18ENZOFURAN 1700U 2,4-DINITROTOLUENE 1700U 4-CHLOROPHENYL PHENYL ETHER 1700U 4-CHLOROPHENYL PHENYL ETHER 1700U N-NITROSODIPHENYL AMINE/DIPHENYLAMINE 1700U AHBROMOPHENYL PHENYL ETHER 1700U HEXACHLOROBENZENE (HCB) 1700U ANTHRACENE	1700U FLUORANTHENE 1700U PYRFNE 1700U BENZYL BUTYL PHTHALATE 1700U BENZO(A)ANTHRACFNF 1700U CHRYSENE 1700U CHRYSENE 1700U DI-N-OCTYLPHTHALATE 1700U BENZO(B AND/OR K)FLUORANTHENE 1700U BENZO(B AND/OR K)FLUORANTHENE 1700U INDENO (1,2,3-CD) PYRENE 1700U INDENO (1,2,3-CD) PYRENE 1700U DIBENZO(A,H)ANTHRACENE 1700U BENZO(GHI)PERYLENE 1700U PHENOL 1700U 2-CHLOROPHENOL 3300U BENZYL ALCOHOL 1700U 2-METHYLPHENOL 1700U 2-NITROPHENOL 3300U BENZOIC ACID 1700U 2,4-DIME HYLPHENOL 3300U BENZOIC ACID 1700U 2,4-DIME HYLPHENOL 1700U 2,4-DIME HYLPHENOL 1700U 2,4-FIRICHLOROPHENOL 1700U 2,4-FIRICHLOROPHENOL 1700U 2,4-FIRICHLOROPHENOL 1700U 2,4-FIRICHLOROPHENOL 1700U 2,4-DINITROPHENOL 1700U 2,4-DINITROPHENOL 1700U 2,3,4-FIRICHLOROPHENOL 1700U 2,-METHYL-4,6-DINITROPHENOL 1700U PERCENT MOISTURE

REMARKS

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

SAMPLE AND ANALYSIS MANAGEMENT SYSTEM EPA-REGION IV ESD, ATHENS, GA.

06/08/89

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROJECT NO 89-400 SAMPLE NO. 34904 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT.
STATION ID: SS-01 BACKGROUND SURFACE SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG ** CITY: ATHENS ST: GA ** COLLECTION START: 05/03/89 1530 STOP: 00/00/00 . * * ** * *

ANALYTICAL RESULTS UG/KG

TOOOJN HEXADECANDIC ACID

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL
*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN
*U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.
*R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT, RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

EXTRACTABLE ORGANICS DATA REPORT ** PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG CITY: ATHENS SI: GA COLLECTION START: 05/04/89 1020 STOP: 00/00/00 UG/KG ANALYTICAL RESULTS UG/KG ANALYTICAL RESULTS 16000U BIS(2:CHLOROETHYL) ETHER 16000U BIS(2-CHLOROISOPROPYL) ETHER 16000U HEXACHLOROETHANE HEXACHLOROETHANE 78000 FLUORANTHENE 67000 PYRENE
16000U BENZYL BUTYL PHTHALATE
16000U 3,3'-DICHLOROBENZIDINE
28000 BENZYL ANTHRACENE 16000U NITROBENZENE 25000 CHRYSENE 16000U ISOPHORONE . 💏 16000U BIS(2-ETHYLHEXYL) PHTHALATE 160000 BIS(2-CHLOROETHOXY) METHANE 16000U 1,2,4-TRICHLOROBENZENE 16000U NAPHTHALENE 16000U 4-CHLOROANILINE 16000U DI-N-OCTYLPHTHALATE
51000 BENZO(B AND/OR K)FLUORANTHENE
24000 BENZO-A-PYRENE
10000J INDENO (1,2,3-CD) PYRENE
3700J DIBENZO(A H)ANTHRACENE 16000U HEXACHLOROBUTADIENE 160000 2-METHYLNAPHTHALENE 16000U HEXACHLOROCYCLOPENTADIENE (HCCP) 9500J BENZO GHI) PERYLENE 16000U 2-CHLORONAPHTHALENE 16000U 2-NITROANILINE 16000U DIMETHYL PHTHALATE 2800J ACENAPHTHYLENE 16000U PHENOL 16000U 2-CHLOROPHENOL 31000U BENZYL ALCOHOL 160000 2-METHYLPHENOL 16000U 2,6-DINITROTOLUENE 16000U 3-NITROANILINE 160000 (3-AND/OR 4-)METHYLPHENOL 16000U 2-NITROPHENOL 16000U 2.4-ÚIMÉ IHYLPHENOL 31000U BENZOIC ACID 16000U 2.4-DICHLOROPHENOL 16000U 4-CHLORO-3-METHYLPHENOL 16000U 2.4.6-TRICHLOROPHENOL 2.4.5-TRICHLOROPHENOL 160000 ACENAPHTHENE 16000U DIBENZOFURAN 16000U 2,4-DINITROTOLUENE 16000U DIETHYL PHTHALATE 16000U FLUORENE 16000U 4-CHLOROPHENYL PHENYL ETHER 16000U 4-NITROANILINE 160000 2,4,5-TRICHLORD/HEROC 310000 2,4-DINITROPHENOL 160000 2,3,4,6-TETRACHLOROPHENOL 310000 2-METHYL-4,6-DINITROPHENOL 310000 PENTACHLOROPHENOL 16000U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE 16000U 4-BROMOPHENYL PHENYL ETHER 16000U HEXACHLOROBENZENE (HCB) 16000 PHENANTHRENE 5200J ANTHRACENE 14 PERCENT MOISTURE

REMARKS

16000U DI-N-BUTYLPHTHALATE

REMARKS

^{*}A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT PROJECT NO. 89-400 SAMPLE NO. 34900 SAMPLE TYPE: SOIL SOURCE: WESTINGHOUSE ELECT. PROG ELEM: NSF COLLECTED BY: R YOUNG ** CITY: ATHENS ST: GA ** STATION ID: SS-02 SURFACE SOIL #02 COLLECTION START: 05/04/89 1020 STOP: 00/00/00 * * .. * *

ANALYTICAL RESULTS UG/KG

(DIME INVLBUTENYLIDENE) BISBENZENE --2000JN METHYLPHENANTHRENE 2000JN 6000JN CYCLOPENTAPHENANTHRENE 3000JN PHENYL NAPHTHAL FNE 2000JN BIS(BUTADIYNEDIYL)BENZENE 3000JN BENZONAPHTHOFURAN (3 ISOMERS) PHENANTHRENECARBONITRILE METHYLFLUORANTHENE (4 ISOMERS) 20000JN 8000JN BENZOFLUORENE 7000JN BENZONAPHTHOTHIOPHENE 40000JN BENZOFLUORANTHENE (NOT B OR K) (2 ISOMERS) 2 UNIDENTIFIED COMPOUNDS 200000J **BENZOPHENANTHRENONE** 2000JN

^{*}A-AVERAGE VALUE *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL *NA-NOT ANALYZED *K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT. *R-QC INDICATES THAT DATA UNUSABLE. COMPOUND MAY OR MAY NOT BE PRESENT. RESAMPLING AND REANALYSIS IS NECESSARY FOR VERIFICATION.

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EXTRACTABLE ORGANICS DATA REPORT
PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL PROG ELEM: NSF COLLECTED BY: R YOUNG SOURCE: WESTINGHOUSE ELECT. ST: GA COLLECTION START: 05/04/89 1035 STOP- 00/00/00
                                                                                                                                                    **
                                                                                                                                                    2 2
UG/KG ANALYTICAL RESULTS
                                                                              UG/KG ANALYTICAL RESULTS
  20000U BIS(2 CHLOROETHYL) ETHER
                                                                              20000U FLUORANTHENE
  20000U BIS(2-CHLOROISOPROPYL) ETHER
                                                                              20000U PYRENE
  20000U N-NITROSODI-N-PROPYLAMINE
20000U HEXACHLOROETHANE
                                                                              20000U BENZYL BUTYL PHTHALATE
                                                                                      3,3'-DICHLOROBENZIDINE
BENZO(A)ANTHRACENE
                                                                              20000U
  20000U NITROBENZENE
                                                                              200000
  20000U ISOPHORONE
                                                                              200000
                                                                                       CHRYSENE
  20000U BIS(2-CHLOROETHOXY) METHANE
20000U 1,2,4-TRICHLOROBENZENE
                                                                              20000U BIS(2-ETHYLHEXYL) PHTHALATE
20000U DI-N-OCTYLPHTHALATE
20000U BENZO(B AND/OR K)FLUORANTHENE
  20000U NAPHTHALENE
20000U 4-CHLOROANILINE
20000U HEXACHLOROBUTADIENE
20000U 2-METHYLNAPHTHALENE
                                                                              20000U
                                                                                       BENZO-A-PYRENE
                                                                                      INDENO (1,2,3-CD) PYRENE
DIBENZO(A,H)ANTHRACENE
BENZO(GHI)PERYLENE
                                                                              20000U
                                                                              20000V
  20000U HEXACHLOROCYCLOPENTADIENE (HCCP)
                                                                              20000U
  20000U 2-CHLORONAPHTHALENE
                                                                                       PHENOL
2-CHLOROPHENOL
                                                                              20000U
  20000U 2-NITROANILINE
20000U DIMETHYL PHTHALATE
                                                                              20000U
                                                                              40000U BENZYL ALCOHOL
  20000U ACENAPHTHYLENE
20000U 2,6-DINITROTOLUENE
20000U 3-NITROANILINE
20000U ACENAPHTHENE
                                                                              200000
                                                                                       2-METHYLPHENOL
                                                                                       (3-AND/OR 4-)METHYLPHENOL
2-NITROPHENOL
                                                                              200000
                                                                              20000U
                                                                              200000
                                                                                       2,4-DIMETHYLPHENOL
  20000U DIBENZOFURAN
                                                                              40000U BENZOIC ACID
  20000U 2,4-DINITROTOLUENE
20000U DIETHYL PHTHALATE
                                                                              20000U 2,4-DICHLOROPHENOL
                                                                              20000U 4-CHLORO-3-METHYLPHENOL
  20000U FLUORENE
20000U 4-CHLOROPHENYL PHENYL ETHER
20000U 4-NITROANILINE
                                                                              200000 2, 4, 6-TRICHLOROPHENOL
200000 2, 4, 5-TRICHLOROPHENOL
400000 2, 4-DINITROPHENOL
  20000U N-NITROSODIPHENYLAMINE/DIPHENYLAMINE
                                                                              40000U 4-NITROPHENOL
  20000U 4-BROMOPHENYL PHENYL LIHER
                                                                              20000U 2.3,4,6-TETRACHLOROPHENOL
  20000U HEXACHLOROBENZENE (HCB)
                                                                              40000U 2-MÉTHYL-4,6-DINITROPHENOL
40000U PENTACHLOROPHENOL
  20000U PHENANTHRENE
  20000U ANTHRACENE
                                                                                   33 PERCENT MOISTURE
  20000U DI-N-BUTYLPHTHALATE
```

REMARKS

REMARKS

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MISCELLANEOUS EXTRACTABLE COMPOUNDS - DATA REPORT

*** PROJECT NO. 89-400 SAMPLE NO. 34901 SAMPLE TYPE: SOIL

*** SOURCE: WESTINGHOUSE ELECT.

*** STATION ID: SS-03 SURFACE SOIL #03

*** COLLECTION START: 05/04/89 1035 STOP: 00/00/00

***
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ANALYTICAL RESULTS UG/KG

```
5000JN
           METHYLPROPYLBENZENE
           DIETHYLMETHYLBENZENE (2 ISOMERS)
 9000JN
 6000JN
           (DIMETHYLPROPYL)BENZENE
           DIMETHYL (MFTHYL FTHYL) BENZENE (2 ISOMERS)
 10000JN
  4000JN
           ETHYLTRIMETHYLBENZENE
 6000JN
           HEXANOIC ACID
           COPAENE
HEPTADECANOL (2 ISOMERS)
  3000JN
 40000JN
           TETRADECANOIC ACID
200000JN
           PENTADECANOIC ACID
 40000JN
           TETRADECANAL
 40000JN
           HEXADECANOIC ACID
   2E6JN
    2E6J
           11 UNIDENTIFIED COMPOUNDS
           HEPTADECANOIC ACID
100000JN
700000JN
           PETROLEUM PRODUCT
 40000JN
           ETHYLDIMETHYLBENZENE (5 ISOMERS)
```

FOOTNOTES

*A-AVERAGE VALUE *NA-NOT ANALYZED *NAI-INTERFERENCES *J-ESTIMATED VALUE *N-PRESUMPTIVE EVIDENCE OF PRESENCE OF MATERIAL

*K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE CREATER THAN VALUE GIVEN

^{*}K-ACTUAL VALUE IS KNOWN TO BE LESS THAN VALUE GIVEN *L-ACTUAL VALUE IS KNOWN TO BE GREATER THAN VALUE GIVEN *U-MATERIAL WAS ANALYZED FOR BUT NOT DETECTED. THE NUMBER IS THE MINIMUM QUANTITATION LIMIT.

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1927 LAKESIDE PARKWAY SUITE 614 TUCKER, GEORGIA 30084 404-938-7710 received JUL 1 1 1989 SUSBISATI

C-586-7-9-80

July 11, 1989

Mr. A. R. Hanke Site Investigation and Support Branch Waste Management Division Environmental Protection Agency 345 Courtland Street, N.E. Atlanta, Georgia 30365

Subject:

Westinghouse-Electric Corporation

Athens, Clarke County, Georgia

TDD No. F4-8903-40

Dear Mr. Hanke:

Enclosed please find one (1) copy of the analytical results for inorganic and organic analyses of samples collected at the Westinghouse Electric Corporation site. Westinghouse representatives have requested these results and they should be forwarded to the following address:

Westinghouse Electric Corporation c/o Mr. Frank Jones Newton Bridge Road Athens, Georgia 30613

Please contact me if you have any questions or comments.

Very truly yours,

Approved:

Rebecca Hoffmann Project Manager

Rebecca Hoffmann

RH/dwf

Enclosure (1)

cc: Mario Villamarzo

ACCESS INFORMATION SHEET

Westinghouse Electric Corp. Rebecca Hoffmann Site Name: **FIT Project Manager: Newton Bridge Road Geoff Carton** Site Address: **FIT State Coordinator:** Athens, GA 30613 Ken Lucas **EPA Contact:** May 1, 1989 Field Date: GAD003295144 F4-8903-40 EPA ID #: **TDD Number:**

•	File Information	Verification
Facility Owner/Operator Address Phone No. Principal Contact	Westinghouse Electric Corp. Newton Bridge Road Athens, GA 30613 (404) 548-3121 Frank Lones James (Environmental Control Officer) Commuta W/ HARRY BRYAN HIS SUPERWORK	
Landowner Address Phone No. Principal Contact (if different from above)	Westinghouse Electric Corp. 11 Stanwix Street Pittsburgh, PA 15222 Samuel Pitts (Vice President Environmental Affairs) (412) 255-1770	
Date of Information	December 1988	

Date Access Required (3 weeks prior to field date)	Date Information Submitted to EPA	3/30/E9

Comments:

April 17 o 18th of spenil In ourset Rum

FILE

U. S. ENVIRONMENTAL PROTECTION JENCY REGION IV, ATHENS, GEORGIA

MEMORANDUM

DATE:

APR 26 1989

SUBJECT: Westinghouse Electric Corporation

Site Screening Investigation Study Plan

Athens, Clarke County, Georgia. ESD Project No. 89E-221.

FROM:

Patrick Boyle, Environmental Scientist

Hazardous Waste Section

Environmental Compliance Branch Environmental Services Division

TO:

Al Hanke, Chief

Site Assessment Section

Site Investigation and Support Branch

Waste Management Division

THRU:

M. D. Lair, Chief

Hazardous Waste Section

Environmental Compliance Branch

Environmental Services Division

The subject document has been reviewed and it appears to be an adequate study plan for the intended purpose of the investigation. However, there was no mention of the fact that the city of Athens water supply is drawn from surface water sources. A brief discussion of the locations of the city of Athens water intakes relative to the migration pathways from this site is warranted.

Also, often times an onsite visual reconnaissance can fairly accurately reveal landfill boundaries, reducing the need for a geophysical screening in a study of this type.

If you have any questions concerning these comments, please call at FTS 250-3351.

Finger/Patton

Lair Knight

Blackwell, NUS

BIBBISAS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

ENVIRONMENTAL SERVICES DIVISION ATHENS, GEORGIA 30613



MEMORANDUM

DATE:

April 20, 1989

SUBJECT:

Westinghouse Electric Corporation, Athens, GA,

SSI Study Plan

FROM:

Pat Stamp (of Stamp Laboratory Quality Control Specialist

Laboratory Evaluation & Quality Assurance Section

TO:

Al Hanke, Chief dish

Site Assessment Section

Site Investigation & Support Branch, WASTMD

THRU:

Wade Knight, Chief

Laboratory Evaluation & Quality Assurance Section

We have reviewed the subject document and have no comments.

FILE

R-586-4-9-13

STUDY PLAN **SCREENING SITE INSPECTION** WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA EPA ID #: GAD003295144

Prepared Under TDD No. F4-8903-40 CONTRACT NO. 68-01-7346

Revision 0

FOR THE

WASTE MANAGEMENT DIVISION U.S. ENVIRONMENTAL PROTECTION AGENCY

April 14, 1989

NUS CORPORATION SUPERFUND DIVISION

Prepared By

Reviewed By

Approved By

Project Manager

Phil Blackwell

Assistant Regional

Project Manager

Murray Warner, P.E.

Regional Project Manager

NOTICE

The information in this document has been funded wholly by the United States Environmental Protection Agency (EPA) under Contract Number 68-01-7346 and is considered proprietary to the EPA.

This information is not to be released to third parties without the expressed or written consent of the EPA.

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STUDY PLAN

SCREENING SITE INSPECTION

WESTINGHOUSE ELECTRIC CORPORATION

ATHENS, CLARKE COUNTY, GEORGIA

EPA ID #GAD003295144 TDD NO. F4-8903-40

1.0 INTRODUCTION

The NUS Corporation Region 4 Field Investigation Team (FIT) has been tasked by the U.S. Environmental Protection Agency (EPA), Waste Management Division to conduct a Screening Site Inspection (SSI) at the Westinghouse Electric Corporation facility in Athens, Clarke County, Georgia. The investigation will be performed under the authority of the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA). The task will be performed to satisfy the requirements stated in Technical Directive Document (TDD) number F4-8903-40.

1.1 Objectives

The objectives of this sampling investigation are to collect information to assist in developing a site-specific preliminary HRS score and to determine if further investigation is required at this site.

Specific elements are:

- Obtain information to prepare a site specific preliminary HRS
- Provide EPA the necessary information to make decisions on any other actions warranted at the site.

1.2 Scope of Work

The scope of this investigation will include the following activities:

Obtain and review background materials relevant to HRS scoring of site

Obtain aerial photographs and maps of site, if possible

Obtain information on local water systems

Evaluate target population within a 4-mile radius of the site with regard to

groundwater use, surface water use, and possibility of direct contact or fire and

explosion hazard

Conduct a survey of private wells

Determine location and distance to nearest potable well

Develop a site sketch

Conduct a geophysical screening of site to determine areas of potential waste burial, if

applicable

Collect environmental samples

1.3 <u>Schedule</u>

Week of May 1, 1989

1.4 <u>Personnel</u>

Project Manager - Rebecca Hoffmann

Other personnel: Donnie McCurry

Phillip Henderson

Ron Wilde

-2-

1.5 <u>Permits and Authorization Requirements</u>

EPA is responsible for obtaining access to the site and permission to take photographs of site. In addition, EPA is responsible for all permits which may be required to accomplish this task.

1.6 <u>Site History and Description</u>

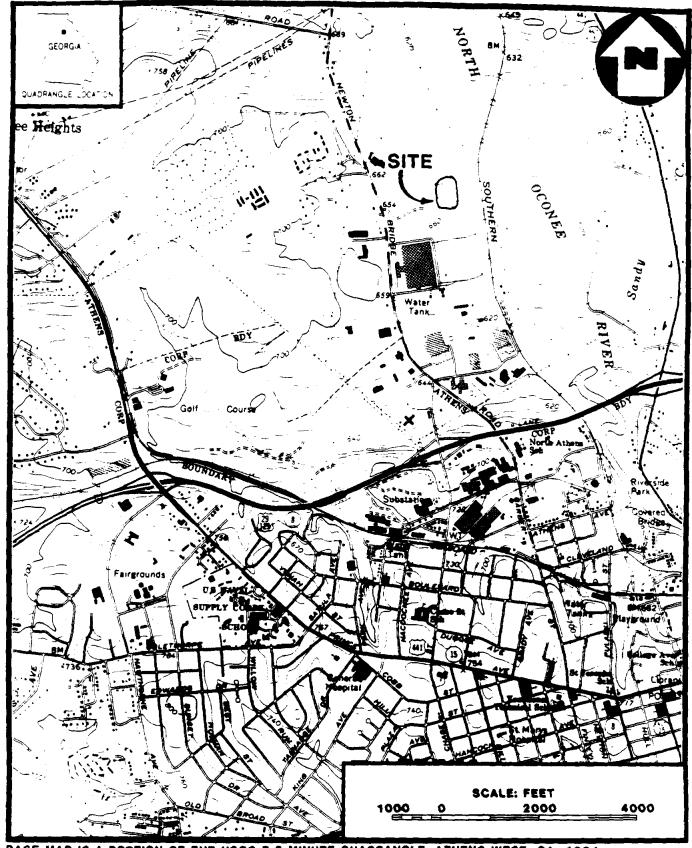
The Westinghouse Electric Corporation is located approximately 1 mile north of Athens, Clarke County, Georgia (Refs. 1, 2) (Figure 1). The Westinghouse landfill is located 800 feet north of the northeast corner of the facility, and is approximately one acre (Ref. 1) (Figure 2).

Westinghouse Electric manufactures and repairs overhead distribution transformers. Between the years of 1958 and 1970, wastes including paint and enamel filter media, waste oil, paint, paint solvents, acid cleaners and sludge from cleaning out tanks were disposed of in the landfill. It is believed that the wastes were containerized in fiber containers, 5-gallon and 55-gallons metal drums prior to disposal (Ref. 10). Sometime after 1970 the landfill was backfilled, and the site is now heavily vegetated (Ref. 3).

1.7 Regional Hydrogeology

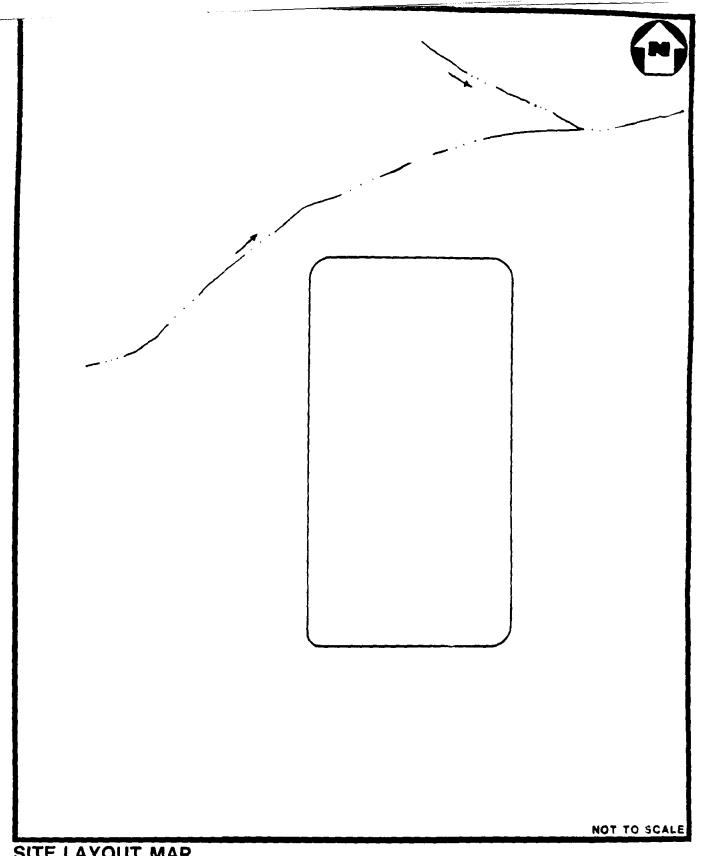
The site is located in the Piedmont physiographic province. The rocks underlying this province are massive igneous and metamorphic rocks of relatively low permeability (Ref. 4, pp. 4, 5). The Athens area has a relatively mild climate. Temperatures average 42°F in January, and 79°F in July (Ref. 5, p. 2). Average annual rainfall is 48 inches (Ref. 6, p. 43). There are two periods of peak rainfall, one in the late winter and one in mid-summer (Ref. 5, p. 5). Net annual precipitation is 7 inches (Ref. 6, pp. 43, 63).

The aquifer used in the study area can be characterized as a crystalline rock aquifer. In this aquifer, groundwater is stored in the unconsolidated material overlying the crystalline rock and within fractures that have formed in the crystalline rock (Ref. 4, p. 12). The residual soils (Regolith) overlying bedrock are capable of storing large quantities of groundwater and well yields are generally highest in areas that have a thick regolith that is saturated with water (Ref. 7, pp. 8-11).



BASE MAP IS A PORTION OF THE USGS 7.5 MINUTE QUADRANGLE, ATHENS WEST, GA. 1984.
SITE LOCATION MAP
WESTINGHOUSE ELECTRIC CORPORATION
ATHENS, GEORGIA





SITE LAYOUT MAP WESTINGHOUSE ELECTRIC CORPORATION ATHENS, GEORGIA

FIGURE-2



The site is underlain by amphibolite interlayered with biotite schist and biotite gneiss. Wells intercepting contact zones between these rock units often have increased permeability as do wells that intersect fault zones. Well yields range from 20 to 225 gallons per minute, with an average yield of 52 gallons per minute. The average depth of wells in the Athens area is 246 feet with a typical casing depth of 69 feet (Ref. 7, plate 1). Few wells are completed to depths greater than 400 feet due to a decrease in the size and number of fractures within the rock below this depth (Ref. 7, p. 9).

Groundwater recharge occurs in topographic highs and groundwater discharge occurs in topographically low areas. The depth to the water table is also dependent on local topography. The water table may be at or near land surface in stream valleys. However, on steep hills or narrow ridges the depth to the water table may be much greater (Ref. 7, p. 11).

Groundwater flow in the regolith is unconfined and follows local topographic gradients (Ref. 7, p. 11). Groundwater flow within fractures of the underlying crystalline rock is influenced by fracture orientation. Wells penetrating deeper fracture systems may intercept groundwater that is under confined conditions.

2.0 GEOPHYSICAL SCREENING

A geophysical screening will be conducted at the site for the purposes of delineating the landfilled portion of the site. Since the exact location of waste disposal is unknown it is felt that geophysical techniques provide the most viable alternative for locating subsurface waste materials associated with these areas. The most suitable geophysical techniques applicable in this geologic setting are believed to be electromagnetics and/or magnetics. If proper subsurface conditions exist at the site these techniques will provide the necessary data needed to accurately define any subsurface waste materials. The results will then be used in determining optimum sampling locations.

Instruments to be used will include a non-contacting ground conductivity meter (Geonics-EM-31) and a proton precession magnetometer (Geometrics - G-856). A summary of geophysical methods is provided in Appendix A.

3.0 SAMPLING INVESTIGATION

The sampling investigation will include the collection of surface soil, subsurface soil, surface water, sediment and groundwater samples. Samples will be analyzed for the complete Target Compound List (TCL) and analyses will be performed under the Contract Laboratory program (CLP).

3.1 Surface Soil Sampling

Four surface soil samples will be collected, including a background sample taken southwest of the landfill. Sample codes and descriptions are present in Table 1. The locations of the proposed samples are shown in Figure 3.

3.2 Subsurface Soil Sampling

Four subsurface samples will be collected including a background as described in Table 1. Three subsurface soil samples will be collected from the suspected disposal area.

3.3 Surface Water and Sediment Sampling

Two surface water and two sediment samples will be collected from an unnamed creek along the drainage pathway. Two surface water and two sediment samples will be collected to establish background conditions. Sample codes and descriptions are provided in Table 1. Sample locations are shown in Figure 3.

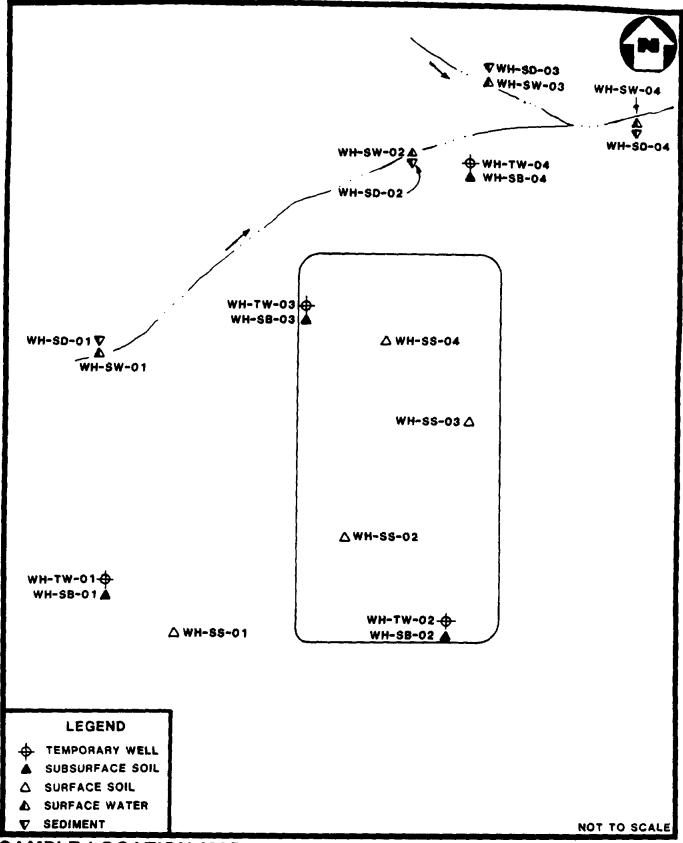
3.4 Groundwater Sampling

Four groundwater samples will be collected from the locations shown in Figure 3. A background sample will be collected from a temporary well located upgradient of the site. Three groundwater samples will be collected from temporary wells located in the suspected disposal areas.

TABLE 1

SAMPLE CODES, DESCRIPTIONS, AND LOCATIONS WESTINGHOUSE ELECTRIC CORPORATION ATHENS, CLARKE COUNTY, GEORGIA

Sample Code	Description	Location/Rationale
WH-TW-01	Groundwater	Offsite - characterize background conditions
WH-TW-02	Groundwater	Onsite-determine presence or absence of contamination
WH-TW-03	Groundwater	Onsite-determine presence or absence of contamination
WH-TW-04	Groundwater	Onsite-determine presence or absence of contamination
WH-SS-01	Surface Soil	Offsite - characterize background conditions
WH-SS-02	Surface Soil	Onsite-determine presence or absence of contamination
WH-SS-03	Surface Soil	Onsite-determine presence or absence of contamination
WH-SS-04	Surface Soil	Onsite-determine presence or absence of contamination
WH-SB-01	Subsurface Soil	Offsite - characterize background conditions
WH-SB-02	Subsurface Soil	Onsite-determine presence or absence of contamination
WH-SB-03	Subsurface Soil	Onsite-determine presence or absence of contamination
WH-SB-04	Subsurface Soil	Onsite-determine presence or absence of contamination
WH-SD-01	Sediment	Offsite - characterize background conditions
WH-SD-02	Sediment	Drainage pathway-determine presence or absence of contamination
WH-SD-03	Sediment	Drainage pathway-determine presence or absence of contamination
WH-SD-04	Sediment	Drainage pathway-determine presence or absence of contamination
WH-5W-01	Surface Water	Offsite - characterize background conditions
WH-5W-02	Surface Water	Drainage pathway-determine presence or absence of contamination
WH-SW-03	Surface Water	Drainage pathway-determine presence or absence of contamination
WH-5W-04	Surface Water	Drainage pathway-determine presence or absence of contamination



SAMPLE LOCATION MAP WESTINGHOUSE ELECTRIC CORPORATION ATHENS, GEORGIA



3.5 Analytical and Container Requirements

Sample containers used will be in accordance with the requirements specified in the Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986. The following is a description of the analysis and types of containers required.

Analyses	Container	Preservatives**
Ext. Organics, Water	1 gal., amber glass*	None
Volatile Organics, Water	40 ml., glass vial*	4 drops conc. HCL to pH <2
Metals, Water	1 liter, plastic	50% HNO ₃ to pH < 2
Cyanide, Water	1 liter, plastic	NaOH to pH >12
Ext. Organics, Soil/Sediment	8 oz., glass*	None
Volatile Organics Soil/Sediment	4 oz., glass*	None
Inorganics, Soil/Sediment	8 oz., glass*	None

- Sample container lids are lined with teflon.
- ** All samples will be iced to 4°C upon collection.

3.6 Methodology

All sample collection, sample preservation, and chain-of-custody procedures used during this investigation will be in accordance with the standard operating procedures as specified in Section 3 and 4 of the <u>Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual</u>; United States Environmental Protection Agency, Region IV, Environmental Services Division, April 1, 1986.

All laboratory analyses and laboratory quality assurance procedures used during this investigation will be in accordance with standard procedures and protocols as specified in the <u>Analytical Support Branch Operations and Quality Assurance Manual</u>; United States Environmental Protection Agency, Region IV, Environmental Services Division; revised June 1, 1985 or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the contract analytical laboratory program.

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Appendix A

Geophysical Methodology

APPENDIX A SUMMARY OF GEOPHYSICAL METHODS

The following sections are from "Geophysical Techniques for Sensing Buried Wastes and Waste Migration" by Glaccum, R. A., and M. R. Noel, August, 1983, Technos, Inc., for Environmental Monitoring Systems Laboratory, ORD., USEPA, Las Vegas, Nevada.

RESISTIVITY

The resistivity method is used to measure the electrical resistivity of the geohydrologic section which includes the soil, rock, and ground water. Accordingly, the method may be used to assess lateral changes and vertical cross sections of the natural geohydrologic settings. In addition, it can be used to evaluate contaminant plumes and locate buried wastes at hazardous waste sites.

Application of the method requires that an electrical current be injected into the ground by a pair of surface electrodes. The resulting potential field (voltage) is measured at the surface between a second pair of electrodes. The subsurface resistivity can be calculated by knowing the electrode separation and geometry of the electrode positions, applied current, and measured voltage. (Resistivity is the reciprocal of conductivity, the parameter directly measured by the Electromagnetic (EM) technique).

In general, most soil and rock minerals are electrical insulators (highly resistive); hence the flow of current is conducted primarily through the moisture-filled pore spaces within the soil and rock. therefore, the resistivity of soils and rocks is predominantly controlled by the porosity and permeability of the system, the amount of pore water, and the concentration of dissolved solids in the pore water.

The resistivity technique may be used for "profiling" or "sounding". Profiling provides a means of mapping lateral changes in subsurface electrical properties. This field technique is well suited to the delineation of contaminant plumes and the detection and location of changes in natural geohydrologic conditions. Sounding provides a means of determining the vertical changes in subsurface electrical properties. Interpretation of sounding data provides the depth and thickness of subsurface layers having different resistivities. Commonly up to four layers may be resolved with this technique.

Applications of the resistivity method at hazardous waste sites include:

- Locating and mapping contaminant plumes;
- Establishing direction and rate of flow of contaminant plumes;
- Defining burial sites by
 - -locating trenches,
 - defining trench boundaries,
 - determining the depths of trenches.
- Defining natural geohydrologic conditions such as
 - depth to water table or to water-bearing horizons,
 - depth to bedrock, thickness of soil, etc.

Most dry mineral components of soil and rock are highly resistive except for a few metallic ore minerals. Under most circumstances, the amount of soil/rock moisture dominates the measurement. Increased moisture decreases—the resistivity value. Current flow is essentially electrolytic, being conducted by water contained within pores and cracks. A few minerals like clays actually contribute to conduction. In general, soils and rocks become less resistive as:

- Mositure or water content increases;
- Porosity and permeability of the formation increases;
- Dissolved solid and colloid (electrolyte) content increases;
- Temperature increases (a minor factor, except in areas of permafrost).

Very dry sand, gravel or rock as encountered in arid or semi-arid areas will have very high resistivity. As the empty pore spaces fill with water, resistivity will drop. Conversely, the resistivity of earth materials which occur below the water table but lack pore space (such as massive granite and limestone) will be relatively high and will be primarily controlled by current conduction along cracks and fissures in the formation. Clayey soils and shale layers generally have low resistivity values, due to their inherent moisture and clay mineral content. In all cases, an increase in the electrolyte, total dissolved solids (TDS) or specific conductance of the system will cause a marked increase in current conduction and a corresponding drop in resistivity. This fact makes resistivity an excellent technique for the detection and mapping of conductive contaminant plumes.

The operator must insure that adequate space is available at the site and that it is relatively clear of buried pipes and fences. Finding sufficient space for a long profile array with an overall length three to six times the depth of interest, or a sounding array with an overall length nine to twelve times the depth of interest can sometimes be a problem.

Although resist vity sounding methods are primarily intended for use in uniformly layered geological conditions, useful data may be obtained from the complex subsurface conditions often found at HWS. With both profiling and sounding techniques, inhomogeneities in the near-surface soils may introduce noise in the data. Some surface conditions such as dry surface materials, concrete roads or parking lots may preclude the use of the resistivity method.

The resistivity method is inherently limited to station measurements, since electrodes must in physical and electrical contact with the ground. This requirement makes the resistivity method slower than a non-contact method such as EM.

Capabilities

- Resistivity profiling techniques can be used to detect and map contaminant plumes and changes in geohydrology.
- Resistivity sounding methods can estimate the depth, thickness and resistivity of subsurface layers, or depth to the water table.
- Both profiling and sounding data can be evaluated qualitatively or semi-quantitatively in the field.
- Resistivity values can be used to identify the probable geologic composition of a layer or to
 estimate the specific conductance of a plume.
- Depth to bottom of landfills and large burial sites can sometimes be estimated.

Limitations

- The sounding technique requires that site conditions be relatively homogeneous laterally.
- The method is susceptable to noise cause by nearby fences, pipes and geologic scatter, which may interface with usefulness of the data.
- Quantitative interpretation requires the use of master curves and/or computer programs, and experience in their use.

ELECTROMAGNETICS (EM)*

The electromagnetic (EM) method provides a means of measuring the electrical conductivity of subsurface soil, rock, and ground water. Electrical conductivity is a function of the type of soil and rock, its porosity, its permeability, and the fluids which fill the pore space. In most cases the conductivity (specific conductance) of the pore fluids will dominate the measurement. Accordingly, the EM method is applicable both to assessment of natural geohydrologic conditions and to mapping of many types of contaminant plumes. Additionally, trench boundaries, buried wastes and drums, as well as metallic utility lines can be located with EM techniques.

Natural variations in subsurface conductivity may be caused by changes in soil moisture content, ground water specific conductance, depth of soil cover over rock, and thickness of soil and rock layers. Changes in basic soil or rock types, and structural features such as fractures or voids may also produce changes in conductivity. Localized deposits of natural organic, clay, sand, gravel, or saltrich zones will also affect subsurface conductivity.

*The term electromagnetic has been used in contemporary literature as a descriptive term for other geophysical methods, including GPR and metal detectors which are based on electromagnetic principles. However, this document will use electromagnetic (EM) to specifically imply the measurement of subsurface conductivities by low-frequency electromagnetic induction. This is in keeping with the traditional use of the term in the geophysical industry from which the EM methods originated. While the authors recognize that there are many electromagnetic systems and manufacturers, the discussion in this section is based solely on instruments which are calibrated to read in electrical conductivity units and which have been effectively and extensively used at hazardous waste sites. There is only one manufacturer of such instruments at the time of this writing.

Many contaminants will produce an increase in free ion concentration when introduced into the soil or ground water systems. This increase over background conductivity enables detection and mapping of contaminated soil and ground water at Hazardous Waste Sites (HWS), landfills, and impoundments. Large amounts of organic fluids such as diesel fuel can displace the normal soil moisture, causing a decrease in conductivity which may also be mapped, although this is not commonly done. The mapping of a plume will usually define the local flow direction of

contaminants. Contaminant migration rates can be established by comparing measurements taken at different times.

The absolute values of conductivity for geologic materials (and contaminants) are not necessarily diagnostic in themselves, but the variations in conductivity, laterally and with depth, are significant. It is these variations which enable the investigator to rapidly find anomalous conditions.

Since the EM method does not require ground contact, measurements may be made quite rapidity. Lateral variations in conductivity can be detected and mapped by a field technique called profiling. Profiling measurements may be made to depths ranging from 0.75 to 60 meters. The data is recorded using strip chart and magnetic tape recorders. This continuous measurement allows increased rates of data acquisition and improved resolution for mapping small geohydrologic features. Further, recorded data enhanced by computer processing has proved invaluable in the evaluation of complex hazardous waste sites. The excellent lateral resolution obtained from EM profiling datas has been used to advantage in efforts to outline closely-spaced burial pits, to reveal the migration of contaminants into the surrounding soil, and to delineate fracture patterns.

Vertical variations in conductivity can also be detected by the EM method. A station measurement technique called sounding is employed for this purpose. Data can be acquired from depths by combining results from a variety of EM instruments, each requiring different field application techniques. Other EM systems are capable of sounding to depth of one-thousand feet or more, but have not yet been used at HWS and are not adaptable to continuous measurements.

Profiling is the most cost-effective use of the EM method. Continuous profiling can be used in many applications to increase resolution, data density, and permit total site coverage at critical sites.

At HWS, applications of EM can provide:

- Assessment of natural geohydrologic conditions;
- Locating and mapping of burial trenches and pits containing drums and/or bulk wastes;
- Determination of flow direction in both unsaturated and saturated zones;
- Rate of plume movement by comparing measurement taken at different times;
- Locating and mapping of utility pipes and cables which may affect other geophysical measurements, or whose trench may provide a permeable pathway for contaminant flow.

Although there is available a wide variety of EM equipment, most of it is intended for geophysical exploration of mineral deposits. These units have not been used at HWS and do not provide a simple conductivity reading. This document discusses only those instruments which are designed and calibrated to read directly in units of conductivity.

Conductance is measured with electronic instrumentation consisting of a transmitter coil and receiver coil. The transmitter coil radiates an electromagnetic field which induces eddy currents in the earth below the instrument. Each of these eddy current loops, in turn, generates a secondary electromagnetic field which is proportional to the magnitude of the current flowing within that loop. A part of the secondary magnetic field from each loop is intercepted by the receiver coil and produces an output voltage which (within limits) is linearly related to subsurface conductivity. This reading is a bulk measurement of conductivity, e.g., the cumulative response to subsurface conditions ranging all the way from the surface to the effective depth of the instrument.

The sampling depth of EM equipment is related to the instrument's coil spacing. Instruments with coil spacings of one, four, ten, twenty, and forty meters are commercially available. The nominal sampling depth of an EM system is taken to be approximately 1.5 times the coil spacing.

The EM sounding method can rarely identify more than two or three layers with reasonable confidence. The greater the contrast in the conductivity values of each layer, the better the results. Often, the more detailed resistivity sounding method is used to complement EM profiling data.

The results of sounding analysis are usually presented as a vertical section, in which the conductivity layers are identified as a function of depth. The analyst may be able to correlate these layers to geohydrologic units believed to exist at the site.

Although the EM technique can be used for profiling or sounding, profiling is the most effective use of the EM method. Profiling makes possible the rapid mapping of subsurface conductivity changes, and the location, delineation, and assessment of spatial variables resulting from changes in the natural setting or from many contaminants.

EM is a very effective reconnaissance tool. The use of qualitative non-recorded data can provide initial interpretation in the field. If site conditions are complex, the use of a high-density survey grid, continuously-recording instruments, and computer processing may be necessary, in order to properly evaluate subsurface conditions. When continuously-recording instruments are used, total site coverage is feasible. More quantitative information can be obtained by using conductivity data from different depth ranges. At present, three different systems must be used to acquire data from 0.75 to 60 meters. Very often, however, data from two standard depths, e.g. six and fifteen meters, is adequate to furnish depth information.

Capabilities

- The EM profile method permits rapid data acquisition, resulting in high-density and high-resolution surveys.
- Profiling data may be acquired from various descrete depths, ranging from 0.75 meters to 60 meters.
- Continuously-recording instruments (to fifteen meter depth) can increase survey speed, density, and resolution permitting total site coverage, if required.
- EM reads directly in conductivity units (mm/m) permitting use of raw data in the field, and correlation to specific conductance of ground water samples.
- EM can map local and general changes in the natural geohydrologic setting.
- EM can detect and measure the boundaries of a conductivity plume.
- Direction of plume flow can be determined from an EM conductivity map.
- EM measurements taken at different times can provide the means to compute movement rates of conservative contaminants.
- EM can detect and map burial pits and trenches of both bulk and drummed wastes.
- EM can detect and map the location of buried metallic utility lines.

Limitations

- EM has less sounding (vertical) resolution than the resistivity method due to its limited number of depth intervals.
- The acquisition of data from depths of 0.75 to 60 meters requires the use of three different EM systems.
- Continuous data can be obtained only to depths up to approximately fifteen meters.
- An EM measurement is influenced by the shallower materials more than the deeper ones; this
 must be considered when evaluating the data.
- EM measurements become non-linear in zones of very high conductivity.
- The EM method is susceptible to noise from a number of sources, including natural
 atmospheric noise, powerlines, radio transmitters, buried metallic trash, pipes, cables, nearby
 fences, vehicles, and buildings.

MAGNETOMETER

Magnetic measurements are commonly used to map regional geologic structure and to explore for minerals. They are also used to locate pipes and survey stakes or to map archeological sites. They are commonly used at HWS to locate buried drums and trenches.

A magnetometer measures the intensity of the earth's magnetic field. The presence of ferrous metals creates variations in the local strength of that field, permitting their detection. A magnetometer's response is proportional to the mass of the ferrous target. Typically, a single drum can be detected at distances up to six meters, while massive piles of drums can be detected at distances up to twenty meters or more.

Some magnetometers require the operator to stop and take discrete measurements; other instruments permit the acquisition of continuous data as the magnetometer is moved across the site. This continuous coverage is much more suitable for high resolution requirements and the mapping of extensive areas.

The effectiveness of a magnetometer can be reduced or totally inhibited by noise or interference from time-variable changes in the earth's field and spatial variations caused by magnetic minerals in the soil, or iron and steel debris, ferrous pipes, fences, buildings, and vehicles. Many of these problems can be avoided by careful selection of instruments and field techniques.

At HWS, magnetometers may be used to:

- Locate buried steel containers, such as 55-gallon drums;
- Define boundaries of trenches filled with ferrous containers;
- Locate ferrous underground utilities, such as iron piles or tanks, and the permeable pathways
 often associated with them;
- Select drilling locations that are clear of buried drums, underground utilities, and other obstructions.

A magnetometer measures the intensity of the earth's magnetic field. Variations in this field may be caused by the natural distribution of iron oxides within the soil and rock or by the presence of buried iron or steel objects. (The magnetometer does not respond to nonferrous metals such as aluminum, copper, tin, and brass).

The earth's magnetic field behaves much as if there were a large bar magnet embedded in the earth. Although the earth's field intensity varies considerably throughout the United States, its average value is approximately 50,000 gammas.* The angle of the magnetic field with respect to the earth's surface also varies. In the U.S., this angle of inclination ranges approximately sixty to seventy-five degrees from the horizontal.

The intensity of the earth's magnetic field changes daily with sunspots and ionospheric conditions which can cause large and sometimes rapid variations. With time, these variations produce unwanted signals (noise) and can substantially affect magnetic measurements.

If the magnetic properties of the soil and rock were perfectly uniform, there would be no local magnetic anomalies; however, a concentration of natural iron minerals, or a buried iron object, will cause a local magnetic anomaly which can be detected at the surface.

Typical magnetic anomalies at HWS will range from one to hundreds of gammas for small discrete targets, depending on their depth. Massive piles of buried drums will result in anomalies of from one-hundred to one-thousand gammas or more.

*The unit of magnetic measurement is the gamma. Recently, the gamma unit has been renamed the Nano Tesla. At this time, most instruments are still labeled in gammas, as are specification sheets, existing literature, and field data; hence all references to magnetic data in this document are expressed in gammas.

While several factors influence the response of a magnetometer, the mass of a buried target and its depth are the most important. A magnetometer's response is directly proportional to the mass of ferrous metal present and varies by one over the distance cubed (1/d³) for total measurements. If a gradiometer is used, the response falls off even faster, as one over the distance to the fourth power (1d4). With sensors of equal sensitivity, the total field system provides the greater working range. Typically a single drum can be detected at distances up to six meters or more. There is a wide variety of magnetometers available commercially; specific performance is highly dependent upon the type of magnetometer and the field conditions. Theoretically, the number of drums may be calculated, however, such results should be considered only approximations because of the number of variables associated with targets, site conditions, and calculations. Actual results may vary considerably.

A magnetometer with continuous recording capabilities can be used to produce a strip chart of the field data, which is helpful in assessing signal-to-noise ratio, anomaly shape, target location, and provides a means of exercising quality control over field data. This continuous coverage is much more suitable for high-resolution requirements and the mapping of extensive areas.

The effectiveness of a magnetometer can be reduced or totally inhibited by noise or interference from time-variable changes in the earth's field and spatial variations caused by magnetic minerals in the soil, or iron and steel debris, ferrous pipes, fences, buildings, and vehicles. Many of these problems can be avoided by careful selection of instruments and field techniques.

Capabilities

- Magnetometers respond to ferrous metals (iron or steel) only.
- Individual drums can be detected at depths up to six meters.
- Large masses of drums can be detected at depths of six to twenty meters.
- Magnetometers can provide a greater depth range than metal detectors.
- Interpretation of their data may be used to provide estimates of the number and depth of buried drums.
- They can provide a continuous response along a traverse line.
- They may be mounted on vehicles for coverage of a large site.

Limitations

- In general, magnetometers are susceptible to noise from many different sources, including steel fences, vehicles, buildings, iron debris, natural soil minerals, and underground utilities.
- Low cost units are limited in depth range (but their limitations make them insensitive to many of the above sources of noise).
- Total field instruments are also sensitive to fluctuations in the earth's magnetic field which can seriously affect data.
- Data is of limited use in determining the number and depth of targets.
- Complex site conditions may require the use of highly skilled operators, special equipment,
 and the recording and processing of data, along with skilled interpretation.

SEISMIC REFRACTION

Introduction

Seismic refraction techniques are used to determine the thickness and depth of natural layers of soil and rock and the travel time or velocity of seismic waves within the layers. Seismic refraction methods are often used to determine depths to specific horizons such as bedrock, clay layers, and water table. In addition to mapping natural features, additional secondary applications of the seismic method include the location and deleniation of the extent of burial pits and trenches at hazardous waste sites (HWS).

Seismic waves transmitted into the subsurface travel at different velocities depending upon the type of wave. Each type of wave in turn travels at difference velocities in various types of soil and rock of different densities and are refracted (or bent) at the interfaces between layers. Such refraction affects the seismic wave path of travel. An array of geophones implanted in the surface measures the travel time of the different seismic waves from the source of seismic disturbances to the geophones located at a predetermined number and interval of spacings. The time required for a specific wave type to complete this path is measured, permitting a determination to be made of the seismic velocity of each layer, the thicknesses of the layers and their depths, as well as the number of layers. The wave velocity in each layer is directly related to its material properties such as density and hardness.

A seismic source, an array of geophones, and a seismograph are required to make the field measurements. The seismic source may be a simple sledge hammer with which to strike the ground or explosives and any other seismic sources (such as natural earthquakes may be utilized for deeper or special applications. Geophones implanted in the surface of the ground translate the received vibrations of seismic energy into electrical signals. This signal is displayed on the seismograph, permitting measurement of the arrival time of a specific seismic wave type. Since the seismic refraction method measures ground vibrations of small magnitude, it is inherently susceptible noise from a variety of natural and cultural sources.

At HWS, seismic refraction can be used to define natural geohydrologic conditions, including thickness and depth of soil and rock layers, their physical properties such as density. Density in turn is related to composition, and density differences such as depth to bedrock or water table can be detected. It can also be used for the detection and location of features with anomalous density

distributions relative to the surrounding medium such as pits and trenches, and for evaluation of the excavated depth of burial site or landfills.

Principles

Although a number of elastic waves are inherently associated with the method, conventional seismic refraction methods that have been employed at HWS are concerned primarily with the compressional wave (primary or P-wave). The compressional wave is also the first to arrive at the seismic station which makes its unique identification relatively easy.

P-waves propagate through subsurface layers through many different travel paths. the density of a layer and its elastic properties determine the velocity at which the seismic P-wave will travel through the layer. The porosity, mineral composition, and water content of the layer affect both its density and elasticity. A seismic sensor (geophone) detects the direct P-wave as it moves parallel along the top of the surface layer. The time of travel along this path is related to the distance between the sensor and the source and the material composing the layer.

If a layer of higher density, such a bedrock, occurs beneath a surface layer, a seismic wave propagating through the higher-density material will have a higher velocity. As a result, some of the seismic waves will be bent or refracted at the interface as they enter the bedrock. This phenomenon is similar to the refraction of light rays when light passes from a less dense medium, air, into more dense medium, water, and is described by Snell's law. One of these refracted P-wave fronts, crossing the interface at a critical angle, will move parallel to the top of the bedrock along the interface at a greater velocity equal to the bedrock velocity.

The seismic P-wave traveling along this interface will continually disperse energy back into the upper layer through refraction. These refracted P-waves may then be detected in the surface layer at various distances from the seismic source.

Beyond a certain distance (called the critical distance), the refracted P-wave will arrive at a geophone before the direct P-wave. This happens, even though the refraction path is longer than the direct path, because a sufficient portion of the wave's path occurs in the higher velocity bedrock allowing the refracted wave to surpass the direct wave front. Measurement of these first arrival times and their distances from the source permits calculation of layer velocities, thicknesses, and depth to bedrock. Application of the refraction seismic method is generally limited to resolving three to four layers.

The preceding concepts are based upon the fundamental assumptions that:

- Seismic velocitis of geologic layers must increase with depth. This requirement is generally met at most sites.
- 2. Layers must be sufficient thickness to permit detection, given the time scale of seismograph in milliseconds.
- 3. Seismic velocities of layers must be sufficiently different to permit resolution of individual layers beyond seismic noise from natural and cultural sources.

Factors to be Considered for Field Use

The seismic line must be centered over the required area of interest and overall line length must be three to five times longer than the maximum depth of interest. Resolution is determined by the geophone spacing. Spacings of 3 to 15 meters are commonly used in many applications; however, closer spacings may be necessary for very high resolution in determining depth of shallow soil and geologic sections.

Repetition of seismic refraction lines along a grid will reveal lateral variations as well as vertical variations. Resulting data can be used to indicate trends of dipping layers and to detect anomalous conditions, such as clay seams, fractures, disturbed fault zones, thickness of soil mantle to bedrock, as well as the depth position of the water table.

Since the seismic refraction method measures compressional ground vibration, it is inherently sensitive to background noise from a variety of sources. Single enhancement and filtering is a significant aid when working in noisy areas and with small energy sources. Enhancement capability is available in most single and multi-channel seismomether systems. Enhancement is accomplished by adding a number of seismic signals from repeated hammer blows of similar force. The coherent seismic signal is increased in direct proportion to the number of blows, and the energy of each blow while random noise in the seismic signal is increased only by the square root of the number of blows, this causes the seismic signal to "grow" out of the background noise level, permitting detection of seismic waves significantly above noise level when operating in seismically noise environments and when employing greater distances between source and geophones. The overall results provide a more precise measurement of the first arrival time for P-waves because their resolution has been

enhanced by varying such field parameters as distance between source and geophones and energy of seismic source

Depending on site conditions, a hammer is useful for obtaining seismic data to depths of 10 to 15 meters, while a 250-kilogram (500-pound) drop weight is required for depths of 50 to 100 meters. A more powerful seismic source is necessary to obtain deeper data or for work in noise areas. Many sources are available for meeting specialized needs. If the use of explosives or projectile sources is contemplated, the project manager must consider the safety hazards inherent in such methods, as well as their impact on the hazardous site itself, and the response from the surrounding neighborhood. Local laws, insurance requirements and the increase in project cost associated with compliance may also restrict the use of explosives.

Quality Control

Quality control can be achieved in several ways:

- A check of the seismic signal and noise conditions of the instrument display will verify the proper functioning of geophones and trigger cables and the correct range setting of the instrument for a given energy input. A gain setting on the seismometer must be selected that in not overwhelmed by the seismic source but within the optimum sensitivity range of the seismograph to a low resolution of the seismic signal above the seismic noise.
- In cases where paper records are not made, seismic arrival times must be visually picked from the electronic display and immediately plotted on a T/D graph in the field. Problems with improper picks are often discovered by early inspection of these plots. This will also allow determination of proper range scale and a check on the sensitivity range of the instruments.
- e If the data is to be used for legal purposes, or if it must be reviewed by persons other than the field party chief, a hard copy of the data must be made. Multi-channel systems provide a much better means of presenting and documenting the data than do single-channel units. They also provide greater resolution and sensitivity. The individual travels of the single-channel systems have to be clopped and pasted together and provides a much less acceptable-looking and workable record. For simple, smaller

surveys, however, the single-channel units can be satisfactory when used by experienced personnel.

- e Background or off-site data is often required for correlation with known geologic information and to establish clean background noise level. Such background information is also useful as a reference for evaluating complex site conditions.
- Boring logs should be obtained to minimize the possibility that low velocity (hidden layers) or thin beds will remain undetected.
- Electronic calibration of the timing circuits of the seismograph may be done in the laboratory. However, this is rarely necessary because these timing circuits are crystal-controlled and have inherently low signal drift. Normal annual factory maintenance includes such calibration.
- The seismic system may also be run at a standard base station for periodic check of the instrument operation.

Noise

Seismic signals are strongly affected by ground vibration noise; less so be geologic scatter. In addition, the subjective pick of first arrival times can contribute a few milliseconds of error to timing intervals.

Unwanted vibrations that affect the seismic signal at he geophone may be caused by:

- Strong winds which move nearby trees;
- Sounds of airplanes;
- Surface sources, such as moving vehicles on nearby highways and railroads;
- Field crews walking near geophones;
- Nearby blasting or operation of heavy construction equipment;

Micro-earthquakes

Geologic scatter may be caused by lateral variation in layer composition, irregular interface between layers, or a less dense layer occurring below a more dense layer. Such scatter can complicate interpretation of the T/D polt, but is also a valuable indicatory of site conditions.

Examples include:

- Variations in the thickness of the "soil zone";
- Boulders in glacial clay or till;
- Zones of increased cementation in sandstone and limestone;
- Lenses of sand in clay layers;
- Variations in saturated water content caused by perched water tables;
- irregular bedrock surfaces;
- Limestone containing numerous solution cavities.
- Solution cavities filled in with material at different density.

Summery

The seismic refraction method can be used as an aid in defining natural geohydrologic conditions, including thickness and depth of soil and rock layers, and depth to bedrock or water table. Generally, two or three layers system can be analyzed in the field by the use of seismic refraction nomograms and simple calculations. More complicated sites having three to four layers with dip will require a programmable calculatory or a small computer to solve the seismic equations.

Since seismic velocity is directly related to a material properties of the layer such as density and hardness, lateral variations in composition or an irregular interface between layers will show up as geologic scatter on a T/D plot. This is a valuable indicator of variations and anomalous conditions in site conditions. The analysis of this data requires that the interpreter be knowledgeable about the

method, the conditions under which the data was obtained, and the subsurface geohydrologic conditions, and the limitations in the seismic refraction method.

The spacing of geophones in the seismic line must be chosen to resolve thinnest layer in subsurface and its total length must be chosen to three to five times the maximum depth in the subsurface of interest. Lateral resolution in the data is also determined and improved by selecting the optimum geophone spacing.

Depending on site conditions, a hammer source is useful for obtaining seismic data to depth of 10 to 15 meters, while a 500-pound drop weight it required for a seismic source for depths of 50 to 100 meters. Explosives or projectile sources may be used to obtain deeper seismic data.

Since the seismic method measures small ground vibration, it is susceptible to vibration noise from a variety of natural and cultural sources.

The seismic method is inherently a station measurement because geophones must be implanted in the surface of the ground. this makes the method relatively slower when compared to the other continuous geophysical screening techniques that that do not require being rigidly attached to the earth's surface.

Capabilities

- Seismic refraction measurements can provide depth and thickness of surbsurface geologic layers including depth to bedrock and water table.
- Seismic velocity of the layers can be related to their physical properties including composition, density and elasticity.
- Disturbed soil zones can often be detected and mapped, permitting the location and delineation of burial zones and depth of their burial at HW5.
- Depth to bottom of disposal areas and landfills may be established without extensive drilling, although a test well or two can help in assuring correctness of interpreting seismic data.

Limitations

- e Seismic data is gathered as a station (or stations) measurement and involves relatively slower and more involved field procedures compared to continuous methods.
- Interpretation of data requires that site conditions be relatively uniform to obtain highly accurate results.
- The seismic method is very susceptible to vibration noise and reliability depends on low background noise levels.
- Resolution of seismic velocity data of very shallow depths makes interpretation more difficult.

OVERSIZED DOCUMENT



1927 LAKESIDE PARKWAY SUITE 614 TUCKER, GEORGIA 30084 404-938-7710 JUL 1 1 1989 SUBJSAS

C-586-7-9-80

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July 11, 1989

Mr. A. R. Hanke Site Investigation and Support Branch Waste Management Division Environmental Protection Agency 345 Courtland Street, N.E. Atlanta, Georgia 30365

Subject:

Westinghouse Electric Corporation

Athens, Clarke County, Georgia

TDD No. F4-8903-40

Dear Mr. Hanke:

Enclosed please find one (1) copy of the analytical results for inorganic and organic analyses of samples collected at the Westinghouse Electric Corporation site. Westinghouse representatives have requested these results and they should be forwarded to the following address:

Westinghouse Electric Corporation c/o Mr. Frank Jones Newton Bridge Road Athens, Georgia 30613

Please contact me if you have any questions or comments.

Very truly yours,

Approved:

Rebecca Hoffmann Project Manager

Rebecca Hoffmann

RH/dwf

Enclosure (1)

cc: Mario Villamarzo

ACCESS INFORMATION SHEET

Westinghouse Electric Corp. Site Name: Site Address: FIT Project Manager: Newton Bridge Road Rebecca Hoffmann FIT State Coordinator: Athens, GA 30613 **Geoff Carton EPA Contact:** Ken Lucas Field Date:

May 1, 1989

EPA ID #:

GAD003295144

TDD Number:

F4-8903-40

	File Information	
Facility Owner/Operat Address Phone No. Principal Contact	Westinghouse Electric Corp. Newton Bridge Road Athens, GA 30613 (404) 548-3121 Frank Jones James (Environmental Control Officer) Chumta W HARRY BRYAN HIS SUPERWORK	Verification
Landowner Address Phone No. Principal Contact (if different from above)	Westinghouse Electric Corp. 11 Stanwix Street Pittsburgh, PA 15222 Samuel Pitts (Vice President Environmental Affairs) (412) 255-1770	
Date of Information	December 1988	

Date Access Required (3 weeks prior to field date)	Date Information Submitted to EPA 3/30/E9	
Comments:		

April 15th of Spend for ourste Rum



1927 LAKESIDE PARKWAY SUITE 614 TUCKER, GEORGIA 30084 404-938-7710 received APR 17 1989 SISB/SAS

C-586-4-9-118

April 13, 1989

Mr. A.R. Hanke Site Investigation and Support Branch Waste Management Division Environmental Protection Agency 345 Courtland Street, N. E. Atlanta, Georgia 30365

Subject:

Study Plan - Revision 0 Screening Site Inspection - Phase II Westinghouse Electric Corporation Athens, Clarke County, Georgia EPA ID No. GAD003295144 TDD No. F4-8903-89

Dear Mr. Hanke:

Enclosed please find one (1) copy of the Study Plan for the Screening Site Inspection to be conducted at the above-referenced site during the week of May 1, 1989.

If you have any questions concerning the project, please contact me at NUS.

Very truly yours,

Approved

Rebecca Hoffmann Project Manager

Rebecca Hoffmann

RH/gwn

Enclosure (1)



UNITED STATES ENVIRONMENTAL PROTECTION AGENC **REGION 5**

230 SOUTH DEARBORN ST. CHICAGO, ILLINOIS 60604



REPLY TO ATTENTION OF:

Date: FEB 1 3 1990

TO: Regional Site Assessment Manager Contacts

FROM: Linda Martin, SAM Region

RE: Kick off Conference Call for the National Site Assessment

Managers Association (NSAMA)

I really appreciate all the interest shown for the NSAMA in Santa Fe, NM. I was able to get one contact person from each Regional office. Thank you!

I am writing this memo to get started on organizing this Association. I have enclosed a list of names and address for each contact person along with a draft agenda for our first call. I would like to hold the call on Feb 25 or Feb 28 from 1 to 3pm eastern time. Please let me know ASAP which date you prefer. If for some reason you can not attend please have someone else from your region sit in on the call. I will forward details on the call as soon as they are available. If there are any changes to the Contact list or if you have any other agenda items you wish to add please let me know.

Also for your review, I have attached a copy of a proposed SAM survey and copies of the RPM association charter and By Laws. thought that we could develop our charter and by laws from this example. You might want to collect ideas from other SAMs in your region to present during this call. If you have any further questions or concerns about anything please feel free to contact me (FTS 353-9486). Thank you for your help.

Attachments

I will arrange a confusee room when I get the exact data for end. call. Out in Sante Fe I was appointed contact, but for end. call. Out in Sante Fe I was appointed contact, but I think this is something we are all interest in. Please complete the I think this is something we are all interest in. Please complete the I survey and return to mi, MEAP.

DRAFT AGENDA

- Define a SAM
 - What does a SAM do
 - what does each region define as a SAM
 - Gear this to be a professional organization
- SAM Survey
 - -Is this needed
 - -Ideas on changes
 - -Volunteer to compile data
 - -Make a SAm directory out of the data
- RPM Charter
 - -should we use as a base for our charter
 - -Volunteer to draft SAM charter
- RPM By Laws
 - Should we use as a base for our by laws
 - Volunteer to draft SAM by laws
- Other items of concern
- Next call

SAM SURVEY

Objective: To determine if Superfund SAM's are interested in forming a national organization, Once collated, the results will be returned to the Regions. Information from this and other surveys might also be used to develop a SAM directory. Thank you for your assistance.

SAM Name:	•
Phone #:	Region: Mail Code:
1. Would a national organization	on for SAMs be beneficial?
2. Would you participate in succession yes NO	ch an organization?
3. What priorities/goals should	a SAM organization have?
•	Career Development Technical Assistance/transfer Networking Sharing of experiences Information Clearing House Other
4. Should a regular national me	eeting be held? YES NO
5. How ∉requently should a nati	ional meeting be held? YEARLY
6. What committees might be for	ormed to address SAM issues?
	Career Development Communication Training/education Technical Transfer Other

7. Any other comments/questions/ideas?

I. STATEMENT OF ESTABLISHMENT

On this day the United States Environmental Protection Agency's (EPA) Remedial Project Managers (RPM's) have assembled to formalize their establishment of the National Association of Remedial Project Managers (NARPM).

II. STATEMENT OF PURPOSE

The NARPM is expressly chartered to the following purposes:

- A. To further the professional development of its membership, more specifically:
 - To foster and encourage in its members the finest professional work ethic.
 - To stimulate its members to produce work of outstanding professional quality and technical competence.
 - 3. To recognize outstanding professional achievement among its membership.
 - 4. To encourage its members to maintain and further develop their technical base and their knowledge of the state of the art through continued learning.
 - 5. To foster public and private awareness of the technical competence and professional achievement of its membership.
- B. To stimulate among its membership a justifiable pride in the value to humanity of the professional work they do, including:
 - 1. Actions taken in defense of public health and life.
 - 2. Actions taken in defense of our environment.
 - 3. Actions taken in defense of public welfare and property.
- C. To seek and foster technical excellence by:
 - 1. Encouraging intra- and inter-Regional technology transfer and disseminating theoretical and practical information regarding innovative technical applications to current and future remedial response actions.
 - Encouraging direct communication between RPMs regarding work in progress, with special emphasis on methodology.
 - 3. Encouraging RPM participation in Agency innovative technology demonstration projects. $\stackrel{\sim}{}$

- D. To improve communication and interaction between the Regions and with Headquarters by:
 - 1. Stimulating ongoing dialogue among RPMs through the scheduling, planning, and conducting of National RPM conferences on a bi-annual basis, and other periodic area or zone activities as needed.
 - 2. Providing a National forum for dialogue and consensus regarding issues of ongoing and current concern to RPMs, and regarding potential solutions to matters affecting their work and their careers.
 - 3. Providing recommendations to the Agency for consideration of such proposed consensus solutions to problems affecting RPMs.
- E. To establish and nurture a sense of unity, purpose and teamwork among RPMs.

To the above purposes the undersigned to subscribe, and in witness thereto set their hands, that this National Association of Remedial Project Managers be established on this _____ day of _____ 1989.

ATTACHMENTS

NARPM Interim Bylaws

I. Statement of Intent

These Interim Bylaws are established and approved by a majority vote of the Regional Representatives of the National Association of Remedial Project Managers, with the intent that they shall serve the purposes of NARPM as contained in the Charter, until such time as first National Conference of NARPM is held.

II. Membership in NARPM

- A. Membership, except as modified below, is limited to Remedial Project Managers employed by the U.S. Environmental Protection Agency, engaged in or supervising oil or hazardous materials incident response activities as provided under Federal law.
- B. Membership in this Association shall cease on the effective date of resignation from the U.S. Environmental Protection Agency or transfer to duties other than as provided under II-A, above.
- C. Membership, as defined (II-A) above, shall be considered <u>active</u>. Members retiring from Federal service or detached from qualifying duty for over 365 days may, upon written request, remain as <u>inactive</u> members.
- D. Active memberships may be granted by NARPM Council balloting following receipt of voluntary request, verbal or written, from qualified persons (per II-A above), and upon payment of NARPM dues as defined below.
- E. Voting shall be restricted to active members.
- F. Honorary membership may, from time to time, be granted to any person deemed by the active membership by majority (IV-F) vote to have demonstrated outstanding dedication to environmental conservation or to the chartered purposes of this Association. (See II-G and V-H of these bylaws).
- G. Honorary membership granted by this Association shall become effective only upon receipt of written acceptance from the grantee, or from heirs or assigns of the grantee.
- H. Membership may be revoked for cause (actions unbecoming an RPM). A revocation action should be: initiated PER IV-H below, by a majority of the elected council members and confirmed by a majority vote (IV-E below). Should such unbecoming conduct be attributed to (a) council member(s), then any three (3) active members acting together may refer

Any active member referred for revocation shall have: the right to vote on the matter, a copy of the charge and 60 days to present refuting testimony to the active membership prior to the start of the 30 day balloting period. Revocation of (a) council member(s) shall initiate the halloting period for replacement. The elected replacement council member(s) shall be, for this purpose only, exempt from the provisions of III-C and II-D, below, and shall serve only the remainder of the revoked council member(s) term(s).

I. Active membership in this Association may be involuntarily or voluntarily converted to inactive membership for reasons of nonparticipation. For this purpose, participation shall be deemed to include voting during the year in at least 50% of the general ballotings, attendance at a minimum of one Regional or National meeting per year, and payment of dues established elsewhere in these Bylaws.

III. Organization of NARPM

- A. This Association is founded squarely upon its active membership, which is its own governing body. In consequence, all major decisions shall be taken by, and in accord with, a balloting of the active members by name against the roster.
- B. Since it is impractical to frequently assemble the entire active membership, a representative council shall be elected by the active membership. The council shall consist of fourteen active members, one of which shall be Chair, one Vice Chair, one Treasurer, one Secretary, and ten Regional Representatives. The chartering election balloting shall elect the Chair, Vice Chair, Treasurer and Secretary for two years and the Regional Representatives for one year. Subsequent elections shall select the appropriate replacement council members to serve two year terms and shall be held prior to 30 days from the end of the term, thus guaranteeing a continuity of current experience on the council. Regional Representatives will be elected by majority vote of each region's active membership. Should a Regional Representative be unable to attend a council meeting, he/she may designate an alternate RPM to serve for this purpose.
- C. Since the purpose of the Council is to serve and involve the active membership, no council member shall serve more than one council term in any four year period.

IV. NARPM Balloting Procedures, Membership Vote

- A. Balloting shall be by written, signed vote on a simple form.
- B. Ballots shall normally be cast by placing them in the ballot box, in the NARPM Secretary's office, or alternately by mailing the ballot to the NARPM Secretary.

- C. Ballots shall be counted, within 30 days of the hallot date, by the NARPM Secretary or, in the case of revocation, by any 3 active members assembled, and reported to the NARPM Council within 30 additional days.
- D. Balloting shall require a quorum, with over 50% of the active membership voting, in order to constitute a valid vote.
- E. A majority vote shall consist of quorum plus agreement, pro or con, by over 50% of the total active membership.
- . A unanimous vote shall consist of agreement, pro or con, of all the non-abstaining hallots cast, quorum per IV-D, and majority per IV-E above.
- G. Ballots shall allow each active member to vote approval (pro) or disapproval (con) on any issue, or to abstain. Ballots cast abstaining shall count toward quorum and shall constitute participation (II-I) in the balloting.
- H. Issues requiring balloting shall be presented to the council chair by any active member, in writing. No issue shall be presented to the active membership for balloting without prior majority agreement of the council, except as provided in II-H, above.
- I. Ballots may be accompanied (covered) by a copy of the issue request, IV-H, above, but shall contain title and summary of the issue, and shall be cast alone.
- J. Issues presented to the active membership and requiring a consensus/majority vote shall be considered approved if the required majority (IV-E) votes approval (pro), shall be considered disapproved if the required majority votes disapproval (con) and shall be considered tabled if no quorum is achieved within 30 days, or if neither "pro" nor "con" receives a majority (per IV-E). Tabled issues shall not be re-halloted unless re-presented per IV-H, above.
- K. Issues of proposed change to the Charter, Bylaws or annual dues shall be decided by active membership vote.

V. Balloting Procedure, NARPM Council

- A. Balloting per IV-A.
- B. Ballots cast shall be mailed to the NARPM Secretary, except for balloting conducted during a council meeting.
- C. Ballots shall be tallied by the Secretary, and original ballots verified at the next RPM Conference or NARPM Council meeting, whichever comes first.

- D. Results of NARPM Council decisions, recommendations, or discussions shall be reported to the Regional Representatives within 60 days of the halloting period established by the Council.
- E. Matters of simple funding disbursal under \$500.00 shall be decided by council balloting alone. Matters of minor petty cash (under \$100.00) disbursal shall not require balloting and may be authorized by any two officers.
- F. Matters of funding disbursal over \$500.00 shall be presented for membership vote per IV-A through K, above, excepting initial incorporation costs, which are approved herewith.
- G. On matters of national import or controversial nature, the council may opt to present the issue(s) for membership halloting per IV-A through K, above.
- H. Honorary membership can be granted by council balloting in response to a proposal from a Regional Representative.
- I. The Chair will not ordinarily vote in matters requiring council hallotingunless halloting results in a tie vote, in which case the Chair will break the tie.

VI. DUES

- A. Chartering Fee: A (one time) chartering fee in the amount of \$10.00 will be paid by each new member as a condition of membership, to cover costs of incorporation.
- B. Annual Dues: Annual dues are hereby established at \$10.00 per year, payable by active members only.
- C. Non-payment of annual dues within the time period established below shall automatically convert membership to <u>inactive</u> (II-I).
- D. Dues shall be payable by check or money order within the first quarter of each fiscal year, beginning fiscal year 1990.

E. In the event of dissolution of this association, the net assets thereof shall be distributed evenly among the active membership of record at the time of dissolution, conformance with applicable state laws of the state in which NARPM is incorporated, and with IRS regulation section 1.501(c)(3)-1(b)4 for the dissolution and distribution of such assets.

VII. USE OF ASSOCIATION ASSETS

Dishursal or disposal of assets of this association shall be limited to the necessary costs of attainment of the purposes detailed in the charter, and to the ability of the association to pay, except as provided in VI-E, above.

VIII. AUTHORIZATION OF THESE BYLAWS

These Interim bylaws are appended to the NARPM Charter, and authorized by the chartering members by signatures affixed to the charter and by roll call vote of the eleven assembled authorized regional representatives, on this 22nd day of June, 1989 in Atlanta, Georgia, as attested by their signatures below.

REGION	REPRESENTATIVE SIGNATURE	REPRESENTATIVE PRINTED NAME
I		
II		
III		
IV	for K Bank	Jon K Bornholm
٧	Kentindall	Ken Tindall
VI		
VII	Some Your	Steve A. Kovac HARE B. ZANOWICK
VIII	Mariet. Formuck	HARE B. ZANOWICK
IX		
X	David Atth	DOUIS A TETTA

SITE ASSESSMENT ASSOCIATION REGIONAL CONTACT LIST

Region 1

Jane Anderson USEPA J.F. Kennedy Fed. Bld Mail Code: Hss-can-7 Boston, MS 02203

FTS 833-1698

Region 2

Ben Conetta USEPA 26 Federal Plaza Mail Code: RM 13-100 New York, NY 10278

FTS 264-6696

Region 3

Lorie Acker USEPA 841 Chestnut Buldg. Mail Code: 3HW13 Philadelphia, PA 19107

FTS 597-3165

Region 4

Debbie Vaughn-Wright USEPA 345 Courtland Street Mail Code: Atlanta, Ga. 30365

FTS 347-5065

Region 5

Linda Martin USEPA 230 S Dearborn Mail Code: 5HS TUB 7 Chicago, Il 60604

FTS 353-9486

Region 6

Barbara Driscoll USEPA - 1445 Ross Avenue Mail Code: 6H MA Dallas, TX 75202 Ed Sierra USEPA FTS 255-6491

FTS

Region 7

Peter Culver USEPA 726 Minnesota Ave Mail Code: Kansas City, KS 66101

FTS 276-7707

Region 8

Pat Smith USEPA 999 18th street, Suite 500 Mail Code: 8HWM-SM Denver, CO 80802

FTS 330-1262

Region 9

Carolyn Douglas USEPA 75 Hawthorne Mail Code: San Francisco, CA 94105

FTS 744-2343

Region 10

Deborah Flood USEPA 1200 Sixth Ave Mail Code: HW-093 Seattle, WA 98101

FTS 399-2722

Headquarter

Tina Maragousis USEPA Mail Code: OS 230 401 M Street S.W. Washington, D.C. 20460

FTS 382-7393